

μA79M00 Series

Negative-Voltage Regulators

This series of fixed-negative-voltage monolithic integrated-circuit voltage regulators is designed to complement the μA78M00 series in a wide range of applications. These applications include on-card regulation for elimination of noise and distribution problems associated with single-point regulation. Each of these regulators can deliver up to 500 mA of output current. The internal current limiting and thermal shutdown features of these regulators make them essentially immune to overload. In addition to use as fixed-voltage regulators, these devices can be used with external components to obtain adjustable output voltages and currents and also as the power pass element in precision regulators.

Rochester Electronics Manufactured Components

Rochester branded components are manufactured using either die/wafers purchased from the original suppliers or Rochester wafers recreated from the original IP. All recreations are done with the approval of the OCM.

Parts are tested using original factory test programs or Rochester developed test solutions to guarantee product meets or exceeds the OCM data sheet.

Quality Overview

- ISO-9001
- AS9120 certification
- Qualified Manufacturers List (QML) MIL-PRF-38535
 - Class Q Military
 - Class V Space Level
- Qualified Suppliers List of Distributors (QSLD)
 - Rochester is a critical supplier to DLA and meets all industry and DLA standards.

Rochester Electronics, LLC is committed to supplying products that satisfy customer expectations for quality and are equal to those originally supplied by industry manufacturers.

The original manufacturer's datasheet accompanying this document reflects the performance and specifications of the Rochester manufactured version of this device. Rochester Electronics guarantees the performance of its semiconductor products to the original OEM specifications. 'Typical' values are for reference purposes only. Certain minimum or maximum ratings may be based on product characterization, design, simulation, or sample testing.

μ A79M00 SERIES NEGATIVE-VOLTAGE REGULATORS

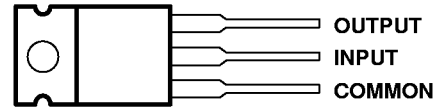
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- 3-Terminal Regulators
- Output Current Up to 500 mA
- No External Components
- High Power Dissipation Capability
- Internal Short-Circuit Current Limiting
- Output Transistor Safe-Area Compensation
- Direct Replacements for Fairchild μ A79M00 Series

description

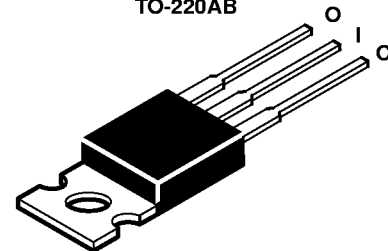
This series of fixed-negative-voltage monolithic integrated-circuit voltage regulators is designed to complement the μ A78M00 series in a wide range of applications. These applications include on-card regulation for elimination of noise and distribution problems associated with single-point regulation. Each of these regulators can deliver up to 500 mA of output current. The internal current limiting and thermal shutdown features of these regulators make them essentially immune to overload. In addition to use as fixed-voltage regulators, these devices can be used with external components to obtain adjustable output voltages and currents and also as the power pass element in precision regulators.

KC PACKAGE
(TOP VIEW)

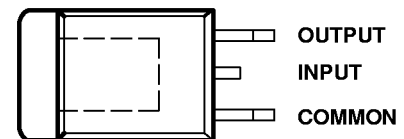


The input terminal is in electrical contact with the mounting base.

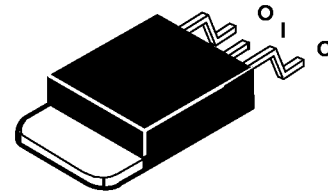
TO-220AB



KTP PACKAGE
(TOP VIEW)



The input terminal is in electrical contact with the mounting base.



AVAILABLE OPTIONS

T _A	V _{O(nom)} (V)	PACKAGED DEVICES		CHIP FORM (Y)
		HEAT-SINK MOUNTED (KC)	PLASTIC FLANGE MOUNTED† (KTP)	
0°C to 125°C	–5	μ A79M05CKC	μ A79M05CKTP	μ A79M05Y
	–6	μ A79M06CKC	μ A79M06CKTP	μ A79M06Y
	–8	μ A79M08CKC	μ A79M08CKTP	μ A79M08Y
	–12	μ A79M12CKC	μ A79M12CKTP	μ A79M12Y
	–15	μ A79M15CKC	μ A79M15CKTP	μ A79M15Y
	–20	μ A79M20CKC	μ A79M20CKTP	μ A79M20Y
	–24	μ A79M24CKC	μ A79M24CKTP	μ A79M24Y

† The KTP package is also available in tape and reel.



Please be aware that an important notice concerning availability, standard warranty, and use in critical applications of Texas Instruments semiconductor products and disclaimers thereto appears at the end of this data sheet.

PRODUCTION DATA information is current as of publication date. Products conform to specifications per the terms of Texas Instruments standard warranty. Production processing does not necessarily include testing of all parameters.

**TEXAS
INSTRUMENTS**

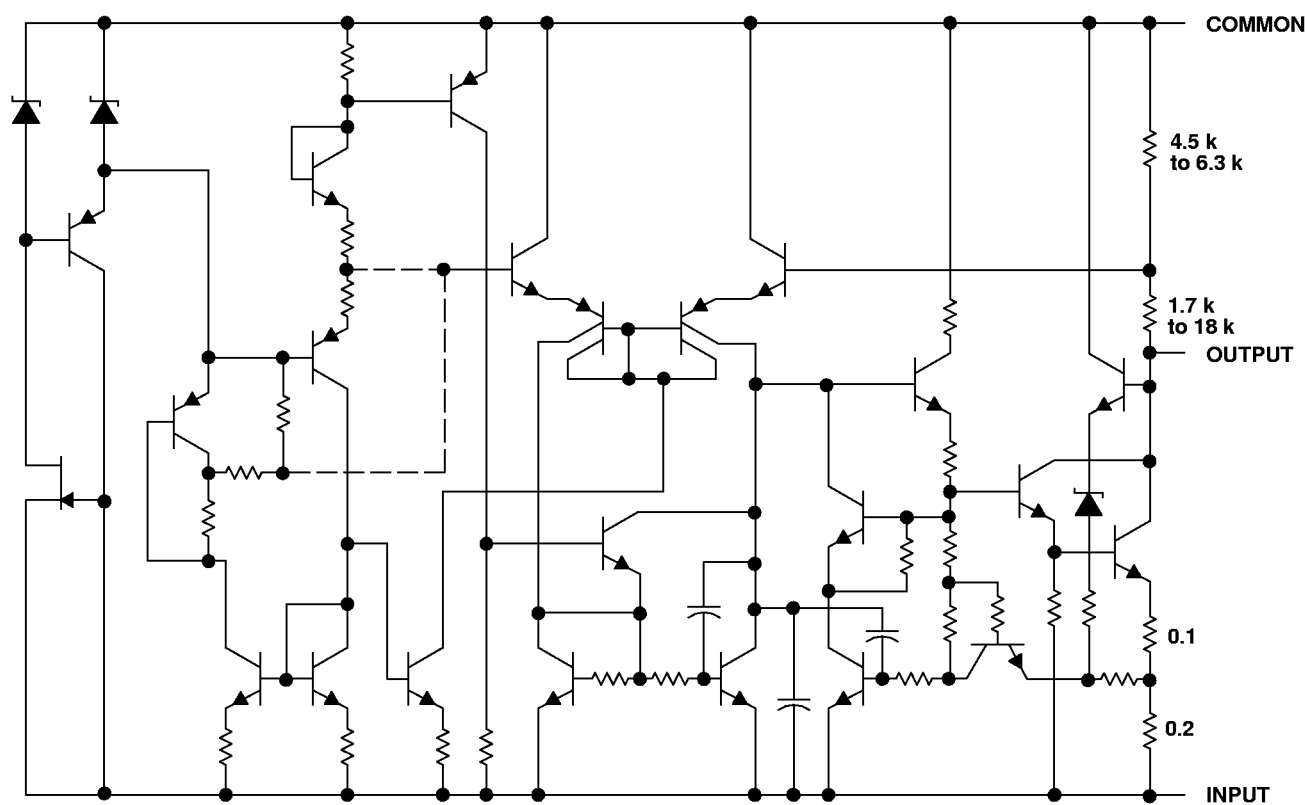
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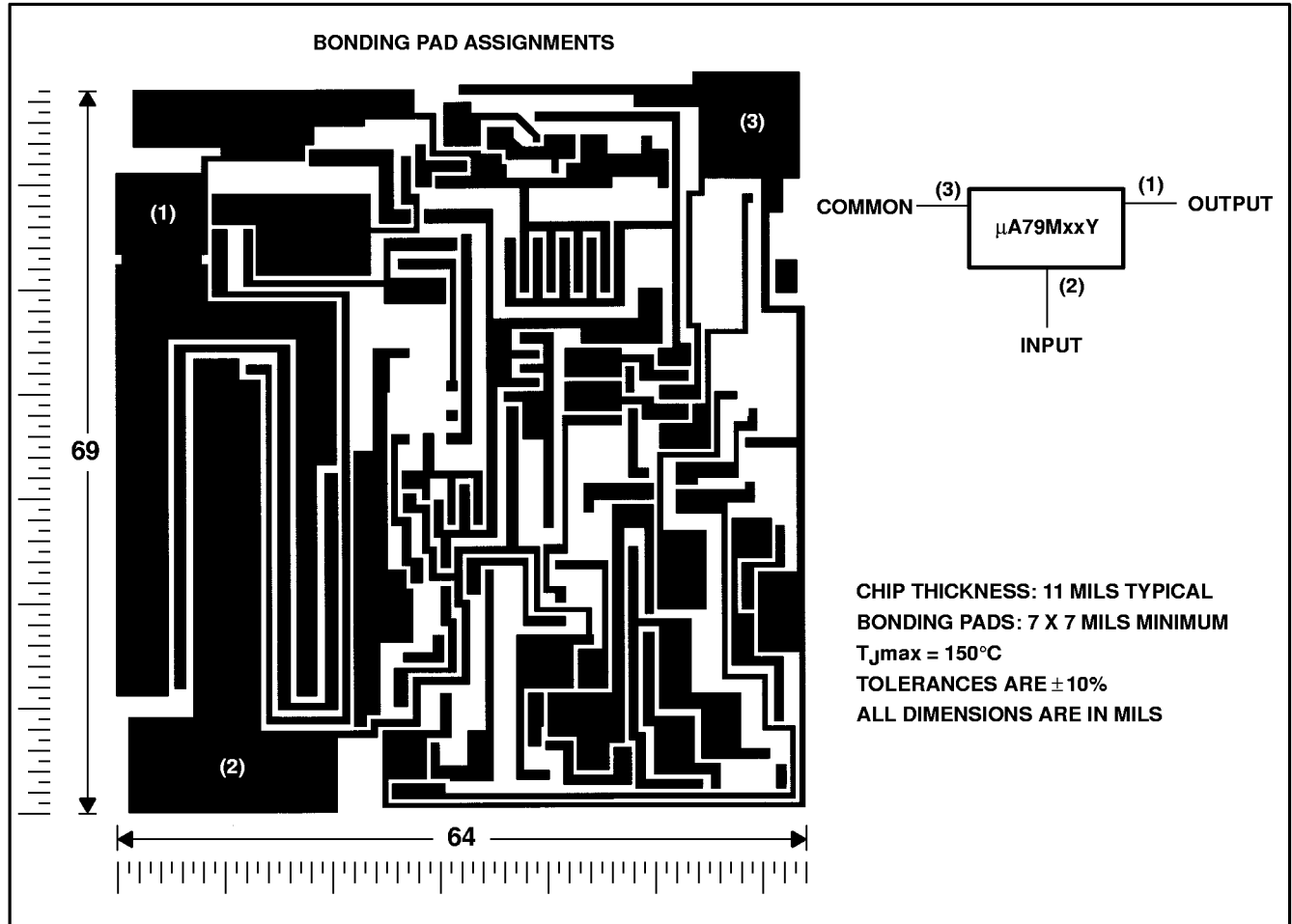
schematic



Resistor values shown are nominal and in Ω .

μA79MxxY chip information

This chip, when properly assembled, displays characteristics similar to the μA79MxxC. Thermal compression or ultrasonic bonding can be used on the doped aluminum bonding pads. The chip can be mounted with conductive epoxy or a gold-silicon preform.



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absolute maximum ratings over operating temperature range (unless otherwise noted)†

	μA79MxxC	UNIT
Input voltage	μA79M20, μA79M24	–40
	All others	–35
Continuous total power dissipation (see Note 1)	See Dissipation Rating Tables 1 and 2	
Operating free-air, T _A , case, T _C , or virtual junction, T _J , temperature range	0 to 150	°C
Storage temperature range, T _{stg}	–65 to 150	°C
Lead temperature 1,6 mm (1/16 inch) from case for 10 seconds	260	°C

† Stresses beyond those listed under “absolute maximum ratings” may cause permanent damage to the device. These are stress ratings only, and functional operation of the device at these or any other conditions beyond those indicated under “recommended operating conditions” is not implied. Exposure to absolute-maximum-rated conditions for extended periods may affect device reliability.

NOTE 1: To avoid exceeding the design maximum virtual junction temperature, these ratings should not be exceeded. Due to variations in individual device electrical characteristics and thermal resistance, the built-in thermal overload protection may be activated at power levels slightly above or below the rated dissipation.

DISSIPATION RATING TABLE 1—FREE-AIR TEMPERATURE

PACKAGE	T _A ≤ 25°C POWER RATING	DERATING FACTOR ABOVE T _A = 25°C	T _A = 70°C POWER RATING	T _A = 125°C POWER RATING
KC	2000 mW	16.0 mW/°C	1280 mW	400 mW
KTP	1800 mW	14.5 mW/°C	1147 mW	350 mW

DISSIPATION RATING TABLE 2—CASE TEMPERATURE

PACKAGE	T _C ≤ 120°C POWER RATING	DERATING FACTOR ABOVE T _C = 120°C	T _C = 125°C POWER RATING
KC	20000 mW	200.0 mW/°C	5000 mW
KTP	18000 mW	181.1 mW/°C	4365 mW

recommended operating conditions

	MIN	MAX	UNIT
Input voltage, V _I	μA79M05C	–7	–25
	μA79M06C	–8	–25
	μA79M08C	–10.5	–25
	μA79M12C	–14.5	30
	μA79M15C	–17.5	–30
	μA79M20C	–23	–35
	μA79M24C	–27	–38
Output current, I _O		500	mA
Operating virtual junction temperature, T _J	0	125	°C

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electrical characteristics at specified virtual junction temperature, $V_I = -10$ V, $I_O = 350$ mA, $T_J = 25^\circ\text{C}$ (unless otherwise noted)

PARAMETER	TEST CONDITIONS†	μA79M05C			UNIT
		MIN	TYP	MAX	
Output voltage‡	$V_I = -7$ V to -25 V, $I_O = 5$ mA to 350 mA, $T_J = 0^\circ\text{C}$ to 125°C	-4.8	-5	-5.2	V
		-4.75		-5.25	
Input voltage regulation	$V_I = -7$ V to -25 V		7	50	mV
	$V_I = -8$ V to -18 V		3	30	
Ripple rejection	$V_I = -8$ V to -18 V, $f = 120$ Hz, $I_O = 100$ mA, $T_J = 0^\circ\text{C}$ to 125°C	50			dB
	$I_O = 300$ mA	54	60		
Output voltage regulation	$I_O = 5$ mA to 500 mA		75	100	mV
	$I_O = 5$ mA to 350 mA		50		
Temperature coefficient of output voltage	$I_O = 5$ mA, $T_J = 0^\circ\text{C}$ to 125°C		-0.4		mV/°C
Output noise voltage	$f = 10$ Hz to 100 kHz		125		μV
Dropout voltage			1.1		V
Bias current			1	2	mA
Bias current change	$V_I = -8$ V to -18 V, $T_J = 0^\circ\text{C}$ to 125°C			0.4	mA
	$I_O = 5$ mA to 350 mA, $T_J = 0^\circ\text{C}$ to 125°C			0.4	
Short-circuit output current	$V_I = -30$ V		140		mA
Peak output current			0.65		A

† Pulse-testing techniques maintain T_J as close to T_A as possible. Thermal effects must be taken into account separately. All characteristics are measured with a 2-μF capacitor across the input and a 1-μF capacitor across the output.

‡ This specification applies only for dc power dissipation permitted by absolute maximum ratings.

electrical characteristics at specified virtual junction temperature, $V_I = -11$ V, $I_O = 350$ mA, $T_J = 25^\circ\text{C}$ (unless otherwise noted)

PARAMETER	TEST CONDITIONS†	μA79M06C			UNIT
		MIN	TYP	MAX	
Output voltage‡	$V_I = -8$ V to -25 V, $I_O = 5$ mA to 350 mA, $T_J = 0^\circ\text{C}$ to 125°C	-5.75	-6	-6.25	V
		-5.7		-6.3	
Input voltage regulation	$V_I = -8$ V to -25 V		7	60	mV
	$V_I = -9$ V to -19 V		3	40	
Ripple rejection	$V_I = -9$ V to -19 V, $f = 120$ Hz, $I_O = 100$ mA, $T_J = 0^\circ\text{C}$ to 125°C	50			dB
	$I_O = 300$ mA	54	60		
Output voltage regulation	$I_O = 5$ mA to 500 mA		80	120	mV
	$I_O = 5$ mA to 350 mA		55		
Temperature coefficient of output voltage	$I_O = 5$ mA, $T_J = 0^\circ\text{C}$ to 125°C		-0.4		mV/°C
Output noise voltage	$f = 10$ Hz to 100 kHz		150		μV
Dropout voltage			1.1		V
Bias current			1	2	mA
Bias current change	$V_I = -9$ V to -25 V, $T_J = 0^\circ\text{C}$ to 125°C			0.4	mA
	$I_O = 5$ mA to 350 mA, $T_J = 0^\circ\text{C}$ to 125°C			0.4	
Short-circuit output current	$V_I = -30$ V		140		mA
Peak output current			0.65		A

† Pulse-testing techniques maintain T_J as close to T_A as possible. Thermal effects must be taken into account separately. All characteristics are measured with a 2-μF capacitor across the input and a 1-μF capacitor across the output.

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μA79M00 SERIES **NEGATIVE-VOLTAGE REGULATORS**

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electrical characteristics at specified virtual junction temperature, $V_I = -19$ V, $I_O = 350$ mA, $T_J = 25^\circ\text{C}$ (unless otherwise noted)

PARAMETER	TEST CONDITIONS†	μA79M08C			UNIT
		MIN	TYP	MAX	
Output voltage‡	$V_I = -10.5$ V to -25 V, $I_O = 5$ mA to 350 mA, $T_J = 0^\circ\text{C}$ to 125°C	-7.7	-8	-8.3	V
		-7.6		-8.4	
Input voltage regulation	$V_I = -10.5$ V to -25 V		8	80	mV
	$V_I = -11$ V to -21 V		4	50	
Ripple rejection	$V_I = -11.5$ V to -21.5 V, $f = 120$ Hz, $I_O = 100$ mA, $T_J = 0^\circ\text{C}$ to 125°C	50			dB
	$I_O = 300$ mA	54	59		
Output voltage regulation	$I_O = 5$ mA to 500 mA		90	160	mV
	$I_O = 5$ mA to 350 mA		60		
Temperature coefficient of output voltage	$I_O = 5$ mA, $T_J = 0^\circ\text{C}$ to 125°C		-0.6		mV/°C
Output noise voltage	$f = 10$ Hz to 100 kHz		200		μV
Dropout voltage	$I_O = 5$ mA		1.1		V
Bias current			1	2	mA
Bias current change	$V_I = -10.5$ V to -25 V, $T_J = 0^\circ\text{C}$ to 125°C			0.4	mA
	$I_O = 5$ mA to 350 mA, $T_J = 0^\circ\text{C}$ to 125°C			0.4	
Short-circuit output current	$V_I = -30$ V		140		mA
Peak output current			0.65		A

† Pulse-testing techniques maintain T_J as close to T_A as possible. Thermal effects must be taken into account separately. All characteristics are measured with a 2-μF capacitor across the input and a 1-μF capacitor across the output.

‡ This specification applies only for dc power dissipation permitted by absolute maximum ratings.

electrical characteristics at specified virtual junction temperature, $V_I = -19$ V, $I_O = 350$ mA, $T_J = 25^\circ\text{C}$ (unless otherwise noted)

PARAMETER	TEST CONDITIONS†	μA79M12C			UNIT
		MIN	TYP	MAX	
Output voltage‡	$V_I = -14.5$ V to -30 V, $I_O = 5$ mA to 350 mA, $T_J = 0^\circ\text{C}$ to 125°C	-11.5	-12	-12.5	V
		-11.4		-12.6	
Input voltage regulation	$V_I = -14.5$ V to -30 V		9	80	mV
	$V_I = -15$ V to -25 V		5	50	
Ripple rejection	$V_I = -15$ V to -25 V, $f = 120$ Hz, $I_O = 100$ mA, $T_J = 0^\circ\text{C}$ to 125°C	50			dB
	$I_O = 300$ mA	54	60		
Output voltage regulation	$I_O = 5$ mA to 500 mA		65	240	mV
	$I_O = 5$ mA to 350 mA		45		
Temperature coefficient of output voltage	$I_O = 5$ mA, $T_J = 0^\circ\text{C}$ to 125°C		-0.8		mV/°C
Output noise voltage	$f = 10$ Hz to 100 kHz		300		μV
Dropout voltage			1.1		V
Bias current			1.5	3	mA
Bias current change	$V_I = -14.5$ V to -30 V, $T_J = 0^\circ\text{C}$ to 125°C			0.4	mA
	$I_O = 5$ mA to 350 mA, $T_J = 0^\circ\text{C}$ to 125°C			0.4	
Short-circuit output current	$V_I = -30$ V		140		mA
Peak output current			0.65		A

† Pulse-testing techniques maintain T_J as close to T_A as possible. Thermal effects must be taken into account separately. All characteristics are measured with a 2-μF capacitor across the input and a 1-μF capacitor across the output.

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electrical characteristics at specified virtual junction temperature, $V_I = -23$ V, $I_O = 350$ mA, $T_J = 25^\circ\text{C}$ (unless otherwise noted)

PARAMETER	TEST CONDITION [†]	μA79M15C			UNIT
		MIN	TYP	MAX	
Output voltage [‡]	$V_I = -17.5$ V to -30 V, $I_O = 5$ mA to 350 mA, $T_J = 0^\circ\text{C}$ to 125°C	-14.4	-15	-15.6	V
		-14.25		-15.75	
Input voltage regulation	$V_I = -17.5$ V to -30 V		9	80	mV
	$V_I = -18$ V to -28 V		7	50	
Ripple rejection	$V_I = -18.5$ V to -28.5 V, $f = 120$ Hz, $I_O = 100$ mA, $T_J = 0^\circ\text{C}$ to 125°C	50			dB
	$I_O = 300$ mA	54	59		
Output voltage regulation	$I_O = 5$ mA to 500 mA		65	240	mV
	$I_O = 5$ mA to 350 mA		45		
Temperature coefficient of output voltage	$I_O = 5$ mA, $T_J = 0^\circ\text{C}$ to 125°C		-1		mV/ $^\circ\text{C}$
Output noise voltage	$f = 10$ Hz to 100 kHz		375		μV
Dropout voltage	$I_O = 5$ mA		1.1		V
Bias current			1.5	3	mA
Bias current change	$V_I = -17.5$ V to -30 V, $T_J = 0^\circ\text{C}$ to 125°C			0.4	mA
	$I_O = 5$ mA to 350 mA, $T_J = 0^\circ\text{C}$ to 125°C			0.4	
Short-circuit output current	$V_I = -30$ V		140		mA
Peak output current			0.65		A

[†] Pulse-testing techniques maintain T_J as close to T_A as possible. Thermal effects must be taken into account separately. All characteristics are measured with a 2-μF capacitor across the input and a 1-μF capacitor across the output.

[‡] This specification applies only for dc power dissipation permitted by absolute maximum ratings.

electrical characteristics at specified virtual junction temperature, $V_I = -29$ V, $I_O = 350$ mA, $T_J = 25^\circ\text{C}$ (unless otherwise noted)

PARAMETER	TEST CONDITION [†]	μA79M20C			UNIT
		MIN	TYP	MAX	
Output voltage [‡]	$V_I = -23$ V to -35 V, $I_O = 5$ mA to 350 mA, $T_J = 0^\circ\text{C}$ to 125°C	-19.2	-20	-20.8	V
		-19		-21	
Input voltage regulation	$V_I = -23$ V to -35 V		12	80	mV
	$V_I = -24$ V to -34 V		10	70	
Ripple rejection	$V_I = -24$ V to -34 V, $f = 120$ Hz, $I_O = 100$ mA, $T_J = 0^\circ\text{C}$ to 125°C	50			dB
	$I_O = 300$ mA	54	58		
Output voltage regulation	$I_O = 5$ mA to 500 mA		75	300	mV
	$I_O = 5$ mA to 350 mA		50		
Temperature coefficient of output voltage	$I_O = 5$ mA, $T_J = 0^\circ\text{C}$ to 125°C		-1		mV/ $^\circ\text{C}$
Output noise voltage	$f = 10$ Hz to 100 kHz		500		μV
Dropout voltage			1.1		V
Bias current			1.5	3.5	mA
Bias current change	$V_I = -23$ V to -35 V, $T_J = 0^\circ\text{C}$ to 125°C			0.4	mA
	$I_O = 5$ mA to 350 mA, $T_J = 0^\circ\text{C}$ to 125°C			0.4	
Short-circuit output current	$V_I = -30$ V		140		mA
Peak output current			0.65		A

[†] Pulse-testing techniques maintain T_J as close to T_A as possible. Thermal effects must be taken into account separately. All characteristics are measured with a 2-μF capacitor across the input and a 1-μF capacitor across the output.

[‡] This specification applies only for dc power dissipation permitted by absolute maximum ratings.



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electrical characteristics at specified virtual junction temperature, $V_I = -33$ V, $I_O = 350$ mA, $T_J = 25^\circ\text{C}$ (unless otherwise noted)

PARAMETER	TEST CONDITIONS†	μA79M24C			UNIT
		MIN	TYP	MAX	
Output voltage‡	$V_I = -27$ V to -38 V, $I_O = 5$ mA to 350 mA, $T_J = 0^\circ\text{C}$ to 125°C	-23	-24	-25	V
		-22.8		-25.2	
Input voltage regulation	$V_I = -27$ V to -38 V		12	80	mV
	$V_I = -28$ V to -38 V		12	70	
Ripple rejection	$V_I = -28$ V to -38 V, $f = 120$ Hz, $I_O = 100$ mA, $T_J = 0^\circ\text{C}$ to 125°C		50		dB
	$I_O = 300$ mA		54	58	
Output voltage regulation	$I_O = 5$ mA to 500 mA		75	300	mV
	$I_O = 5$ mA to 350 mA		50		
Temperature coefficient of output voltage	$I_O = 5$ mA, $T_J = 0^\circ\text{C}$ to 125°C		-1		mV/°C
Output noise voltage	$f = 10$ Hz to 100 kHz		600		μV
Dropout voltage			1.1		V
Bias current			1.5	3.5	mA
Bias current change	$V_I = -27$ V to -38 V, $T_J = 0^\circ\text{C}$ to 125°C			0.4	mA
	$I_O = 5$ mA to 350 mA, $T_J = 0^\circ\text{C}$ to 125°C			0.4	
Short-circuit output current	$V_I = -30$ V		140		mA
Peak output current			0.65		A

† Pulse-testing techniques maintain T_J as close to T_A as possible. Thermal effects must be taken into account separately. All characteristics are measured with a 2-μF capacitor across the input and a 1-μF capacitor across the output.

‡ This specification applies only for dc power dissipation permitted by absolute maximum ratings.

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electrical characteristics at specified virtual junction temperature, $V_I = -10$ V, $I_O = 350$ mA, $T_J = 25^\circ\text{C}$ (unless otherwise noted)

PARAMETER	TEST CONDITIONS†	μ A79M05Y			UNIT
		MIN	TYP	MAX	
Output voltage‡			-5		V
Input voltage regulation	$V_I = -7$ V to -25 V		7		mV
	$V_I = -8$ V to -18 V		3		
Ripple rejection	$V_I = -8$ V to -18 V, $I_O = 300$ mA, $f = 120$ Hz		60		dB
Output voltage regulation	$I_O = 5$ mA to 500 mA		75		mV
	$I_O = 5$ mA to 350 mA		50		
Temperature coefficient of output voltage	$I_O = 5$ mA		-0.4		mV/°C
Output noise voltage	$f = 10$ Hz to 100 kHz		125		μ V
Dropout voltage			1.1		V
Bias current			1		mA
Short-circuit output current	$V_I = -30$ V		140		mA
Peak output current			0.65		A

† Pulse-testing techniques maintain T_J as close to T_A as possible. Thermal effects must be taken into account separately. All characteristics are measured with a $2\text{-}\mu\text{F}$ capacitor across the input and a $1\text{-}\mu\text{F}$ capacitor across the output.

‡ This specification applies only for dc power dissipation permitted by absolute maximum ratings.

electrical characteristics at specified virtual junction temperature, $V_I = -11$ V, $I_O = 350$ mA, $T_J = 25^\circ\text{C}$ (unless otherwise noted)

PARAMETER	TEST CONDITIONS†	μ A79M06Y			UNIT
		MIN	TYP	MAX	
Output voltage‡			-6		V
Input voltage regulation	$V_I = -8$ V to -25 V		7		mV
	$V_I = -9$ V to -19 V		3		
Ripple rejection	$V_I = -9$ V to -19 V, $I_O = 300$ mA, $f = 120$ Hz		60		dB
Output voltage regulation	$I_O = 5$ mA to 500 mA		80		mV
	$I_O = 5$ mA to 350 mA		55		
Temperature coefficient of output voltage	$I_O = 5$ mA		-0.4		mV/°C
Output noise voltage	$f = 10$ Hz to 100 kHz		150		μ V
Dropout voltage			1.1		V
Bias current			1		mA
Short-circuit output current	$V_I = -30$ V		140		mA
Peak output current			0.65		A

† Pulse-testing techniques maintain T_J as close to T_A as possible. Thermal effects must be taken into account separately. All characteristics are measured with a $2\text{-}\mu\text{F}$ capacitor across the input and a $1\text{-}\mu\text{F}$ capacitor across the output.

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electrical characteristics at specified virtual junction temperature, $V_I = -19$ V, $I_O = 350$ mA, $T_J = 25^\circ\text{C}$ (unless otherwise noted)

PARAMETER	TEST CONDITIONS†	μA79M08Y			UNIT
		MIN	TYP	MAX	
Output voltage‡			-8		V
Input voltage regulation	$V_I = -10.5$ V to -25 V		8		mV
	$V_I = -11$ V to -21 V		4		
Ripple rejection	$V_I = -11.5$ V to -21.5 V, $I_O = 300$ mA, $f = 120$ Hz		59		dB
Output voltage regulation	$I_O = 5$ mA to 500 mA		90		mV
	$I_O = 5$ mA to 350 mA		60		
Temperature coefficient of output voltage	$I_O = 5$ mA		-0.6		mV/°C
Output noise voltage	$f = 10$ Hz to 100 kHz		200		μV
Dropout voltage	$I_O = 5$ mA		1.1		V
Bias current			1		mA
Short-circuit output current	$V_I = -30$ V		140		mA
Peak output current			0.65		A

† Pulse-testing techniques maintain T_J as close to T_A as possible. Thermal effects must be taken into account separately. All characteristics are measured with a 2-μF capacitor across the input and a 1-μF capacitor across the output.

‡ This specification applies only for dc power dissipation permitted by absolute maximum ratings.

electrical characteristics at specified virtual junction temperature, $V_I = -19$ V, $I_O = 350$ mA, $T_J = 25^\circ\text{C}$ (unless otherwise noted)

PARAMETER	TEST CONDITIONS†	μA79M12Y			UNIT
		MIN	TYP	MAX	
Output voltage‡			-12		V
Input voltage regulation	$V_I = -14.5$ V to -30 V		9		mV
	$V_I = -15$ V to -25 V		5		
Ripple rejection	$V_I = -15$ V to -25 V, $I_O = 300$ mA, $f = 120$ Hz		60		dB
Output voltage regulation	$I_O = 5$ mA to 500 mA		65		mV
	$I_O = 5$ mA to 350 mA		45		
Temperature coefficient of output voltage	$I_O = 5$ mA		-0.8		mV/°C
Output noise voltage	$f = 10$ Hz to 100 kHz		300		μV
Dropout voltage			1.1		V
Bias current			1.5		mA
Short-circuit output current	$V_I = -30$ V		140		mA
Peak output current			0.65		A

† Pulse-testing techniques maintain T_J as close to T_A as possible. Thermal effects must be taken into account separately. All characteristics are measured with a 2-μF capacitor across the input and a 1-μF capacitor across the output.

‡ This specification applies only for dc power dissipation permitted by absolute maximum ratings.



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electrical characteristics at specified virtual junction temperature, $V_I = -23$ V, $I_O = 350$ mA, $T_J = 25^\circ\text{C}$ (unless otherwise noted)

PARAMETER	TEST CONDITION†	μ A79M15Y			UNIT
		MIN	TYP	MAX	
Output voltage‡			-15		V
Input voltage regulation	$V_I = -17.5$ V to -30 V		9		mV
	$V_I = -18$ V to -28 V		7		
Ripple rejection	$V_I = -18.5$ V to -28.5 V, $I_O = 300$ mA, $f = 120$ Hz		59		dB
Output voltage regulation	$I_O = 5$ mA to 500 mA		65		mV
	$I_O = 5$ mA to 350 mA		45		
Temperature coefficient of output voltage	$I_O = 5$ mA		-1		mV/°C
Output noise voltage	$f = 10$ Hz to 100 kHz		375		μV
Dropout voltage	$I_O = 5$ mA		1.1		V
Bias current			1.5		mA
Short-circuit output current	$V_I = -30$ V		140		mA
Peak output current			0.65		A

† Pulse-testing techniques maintain T_J as close to T_A as possible. Thermal effects must be taken into account separately. All characteristics are measured with a 2-μF capacitor across the input and a 1-μF capacitor across the output.

‡ This specification applies only for dc power dissipation permitted by absolute maximum ratings.

electrical characteristics at specified virtual junction temperature, $V_I = -29$ V, $I_O = 350$ mA, $T_J = 25^\circ\text{C}$ (unless otherwise noted)

PARAMETER	TEST CONDITION†	μ A79M20Y			UNIT
		MIN	TYP	MAX	
Output voltage‡			-20		V
Input voltage regulation	$V_I = -23$ V to -35 V		12		mV
	$V_I = -24$ V to -34 V		10		
Ripple rejection	$V_I = -24$ V to -34 V, $I_O = 300$ mA, $f = 120$ Hz		58		dB
Output voltage regulation	$I_O = 5$ mA to 500 mA		75		mV
	$I_O = 5$ mA to 350 mA		50		
Temperature coefficient of output voltage	$I_O = 5$ mA		-1		mV/°C
Output noise voltage	$f = 10$ Hz to 100 kHz		500		μV
Dropout voltage			1.1		V
Bias current			1.5		mA
Short-circuit output current	$V_I = -30$ V		140		mA
Peak output current			0.65		A

† Pulse-testing techniques maintain T_J as close to T_A as possible. Thermal effects must be taken into account separately. All characteristics are measured with a 2-μF capacitor across the input and a 1-μF capacitor across the output.

‡ This specification applies only for dc power dissipation permitted by absolute maximum ratings.



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electrical characteristics at specified virtual junction temperature, $V_I = -33$ V, $I_O = 350$ mA, $T_J = 25^\circ\text{C}$ (unless otherwise noted)

PARAMETER	TEST CONDITIONS†	μA79M24Y			UNIT
		MIN	TYP	MAX	
Output voltage‡			-24		V
Input voltage regulation	$V_I = -27$ V to -38 V		12		mV
	$V_I = -28$ V to -38 V		12		
Ripple rejection	$V_I = -28$ V to -38 V, $I_O = 300$ mA, $f = 120$ Hz		58		dB
Output voltage regulation	$I_O = 5$ mA to 500 mA		75		mV
	$I_O = 5$ mA to 350 mA		50		
Temperature coefficient of output voltage	$I_O = 5$ mA, $T_J = 0^\circ\text{C}$ to 125°C		-1		mV/°C
Output noise voltage	$f = 10$ Hz to 100 kHz		600		μV
Dropout voltage			1.1		V
Bias current			1.5		mA
Short-circuit output current	$V_I = -30$ V		140		mA
Peak output current			0.65		A

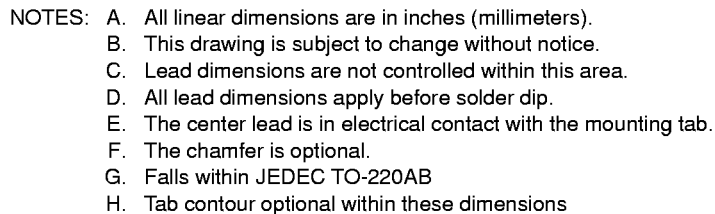
† Pulse-testing techniques maintain T_J as close to T_A as possible. Thermal effects must be taken into account separately. All characteristics are measured with a 2-μF capacitor across the input and a 1-μF capacitor across the output.

‡ This specification applies only for dc power dissipation permitted by absolute maximum ratings.



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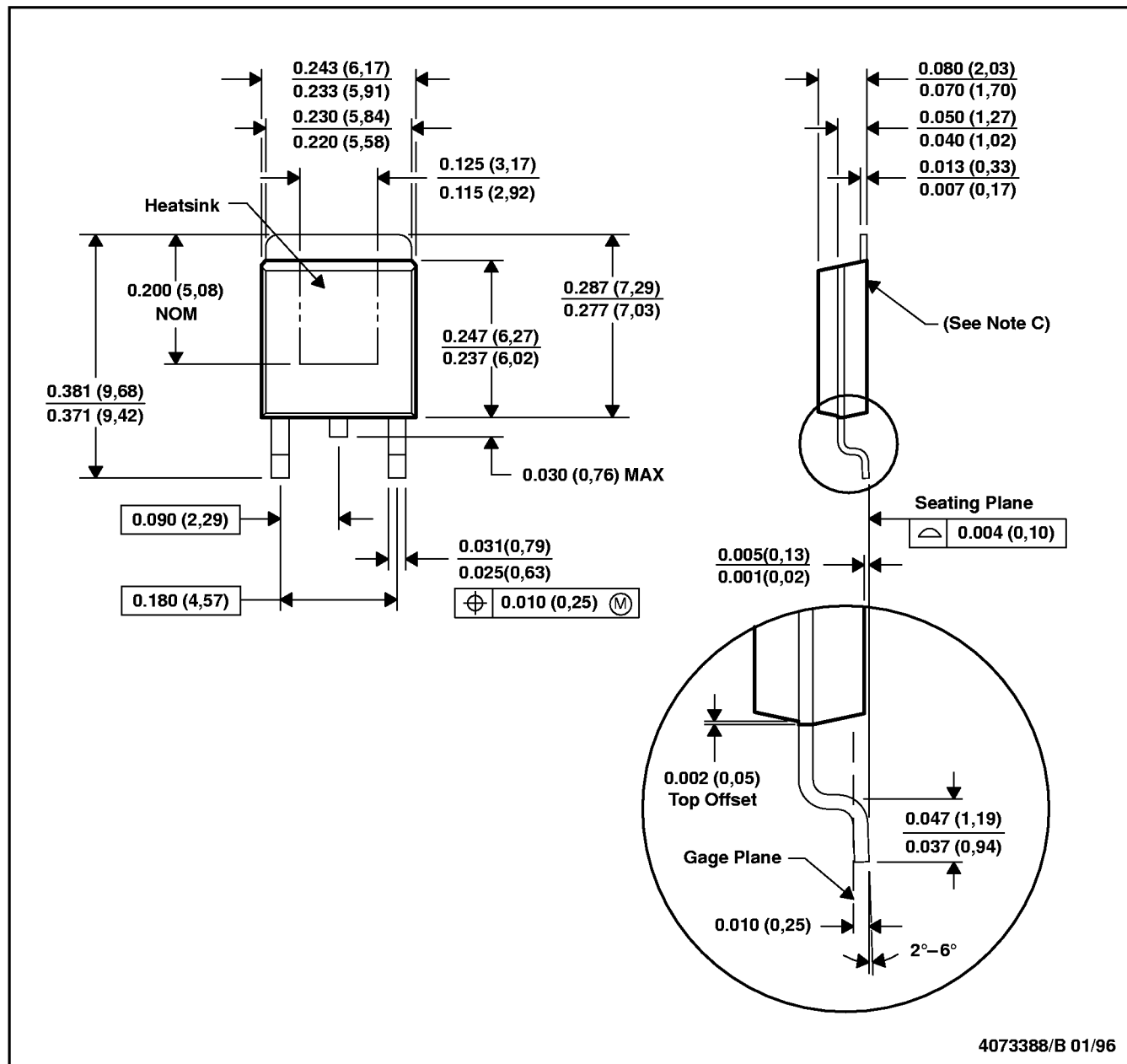
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MECHANICAL INFORMATION

KTP (R-PSFM-T3)

PLASTIC FLANGE-MOUNT PACKAGE



NOTES: A. All linear dimensions are in inches (millimeters).
 B. This drawing is subject to change without notice.
 C. The heatsink area is approximately 28K sq mils.