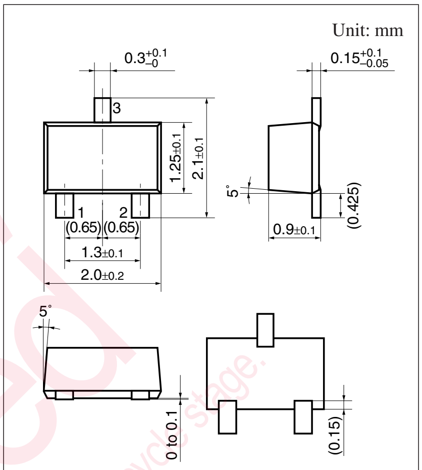
MA3Z792D (MA792WA), MA3Z792E (MA792WK)

Silicon epitaxial planar type

For super high speed switching
For small current rectification

■ Features

- Two MA3Z792 (MA792) is contained in one package
- Forward current (Average) $I_{F(AV)}$ = 100 mA rectification is possible
- Optimum for high frequency rectification because of its short reverse recovery time t_{rr}
- Low forward voltage V_F and good rectification efficiency



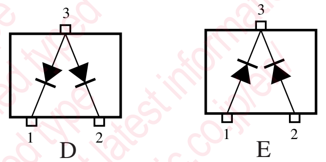
	MA3Z792D	MA3Z792E
1	Cathode 1	Anode 1
2	Cathode 2	Anode 2
3	Anode	Cathode

SMini3-F1 Package

Marking Symbol

- MA3Z792D: M3Y
- MA3Z792E: M3Z

Internal Connection



■ Absolute Maximum Ratings T_a = 25°C

Parameter		Symbol	Rating	Unit
Reverse voltage		V_R	30	V
Repetitive peak reverse voltage		V_{RRM}	30	V
Forward current	Single	I_F	100	mA
	Double *1		70	
Peak forward current	Single	I_{FM}	300	mA
	Double *1		200	
Non-repetitive peak forward surge current *2		I_{FSM}	1	A
Junction temperature		T_j	125	°C
Storage temperature		T_{stg}	−55 to +125	°C

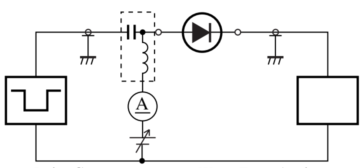
Note) *1: Value of each diode in double diodes used.
*2: The peak-to-peak value in one cycle of 50 Hz sine wave (non-repetitive)

■ Electrical Characteristics T_a = 25°C ± 3°C

Parameter	Symbol	Conditions	Min	Typ	Max	Unit
Forward voltage	V_F	I_F = 100 mA			0.55	V
Reverse current	I_R	V_R = 30 V			15	μA
Terminal capacitance	C_t	V_R = 0 V, f = 1 MHz		20		pF
Reverse recovery time *	t_{rr}	$I_F = I_R$ = 100 mA I_{rr} = 10 mA, R_L = 100 Ω		2		ns

Note) 1. Measuring methods are based on JAPANESE INDUSTRIAL STANDARD JIS C 7031 measuring methods for diodes.
2. This product is sensitive to electric shock (static electricity, etc.). Due attention must be paid on the charge of a human body and the leakage of current from the operating equipment.
3. Absolute frequency of input and output is 250 MHz.
4.*: t_{rr} measurement circuit

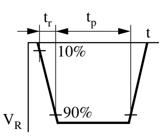
Bias Application Unit (N-50BU)



Pulse Generator (PG-10N) R_s = 50 Ω

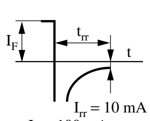
Wave Form Analyzer (SAS-8130) R_i = 50 Ω

Input Pulse



t_p = 2 μs
t_r = 0.35 ns
δ = 0.05

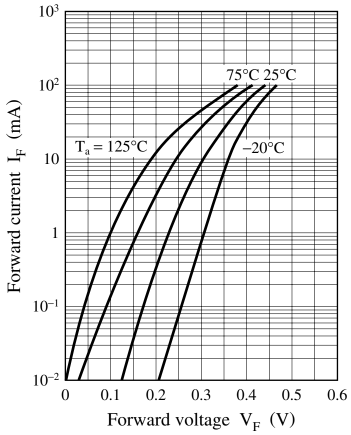
Output Pulse



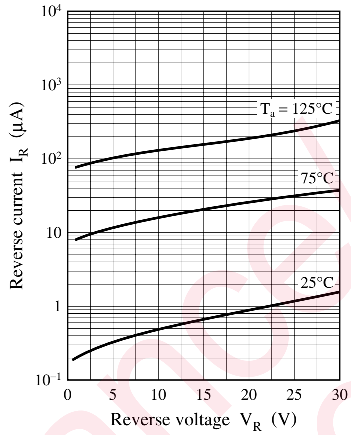
I_F = 100 mA
I_R = 100 mA
R_L = 100 Ω

Note) The part numbers in the parenthesis show conventional part number.

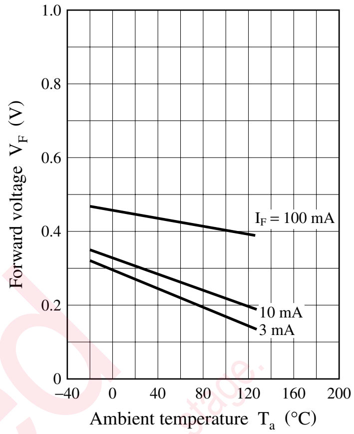
I_F — V_F



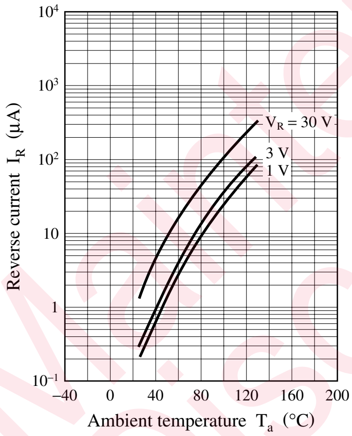
I_R — V_R



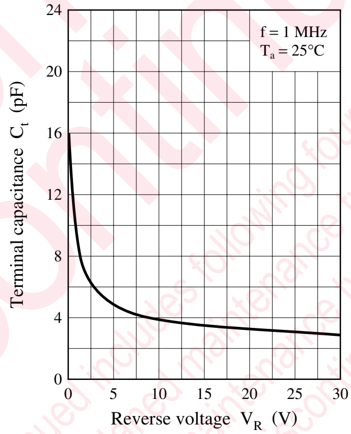
V_F — T_a



I_R — T_a



C_t — V_R



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