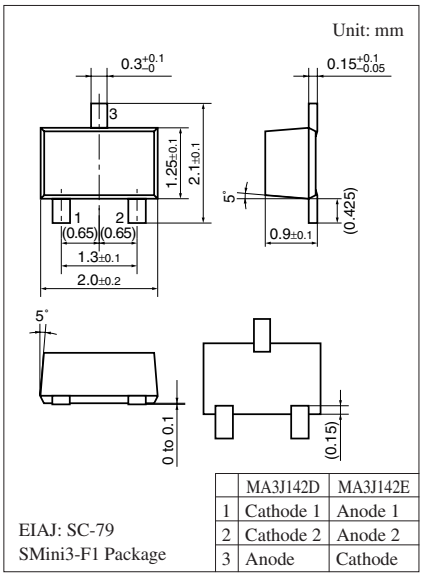
MA3J142D (MA142WA), MA3J142E (MA142WK)

Silicon epitaxial planar type

For switching circuits

■ Features

- Two isolated elements contained in one package, allowing high-density mounting



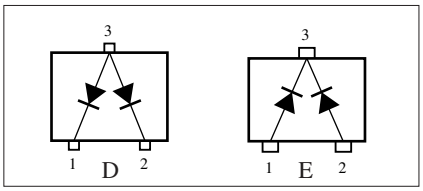
	MA3J142D	MA3J142E
1	Cathode 1	Anode 1
2	Cathode 2	Anode 2
3	Anode	Cathode

EIAJ: SC-79
SMini3-F1 Package

Marking Symbol:

- MA3J142D: MO
- MA3J142E: MU

Internal Connection



■ Absolute Maximum Ratings $T_a = 25°C$

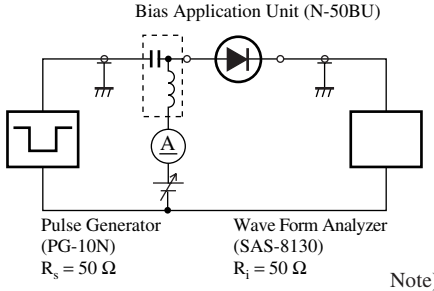
Parameter		Symbol	Rating	Unit
Reverse voltage		V_R	80	V
Maximum peak reverse voltage		V_{RM}	80	V
Forward current	Single	I_F	100	mA
	Double		150	
Peak forward current	Single	I_{FM}	225	mA
	Double		340	
Non-repetitive peak forward surge current *	Single	I_{FSM}	500	mA
	Double		750	
Junction temperature		T_j	150	°C
Storage temperature		T_{stg}	−55 to +150	°C

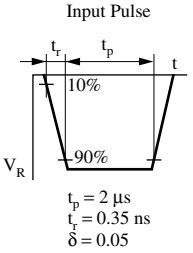
Note) ∗: t = 1 s

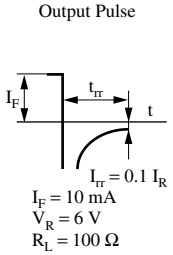
■ Electrical Characteristics $T_a = 25°C \pm 3°C$

Parameter		Symbol	Conditions	Min	Typ	Max	Unit
Forward voltage		V_F	I_F = 100 mA			1.2	V
Reverse voltage		V_R	I_R = 100 µA	80			V
Reverse current		I_R	V_R = 75 V			100	nA
Terminal capacitance	MA3J142D	C_t	V_R = 0 V, f = 1 MHz			15	pF
	MA3J142E					2	
Reverse recovery time *	MA3J142D	t_{rr}	I_F = 10 mA, V_R = 6 V			10	ns
	MA3J142E		I_{rr} = 0.1 I_R, R_L = 100 Ω			3	

Note) 1. Measuring methods are based on JAPANESE INDUSTRIAL STANDARD JIS C 7031 measuring methods for diodes.
2. Absolute frequency of input and output is 100 MHz.
3. ∗: t_{rr} measurement circuit



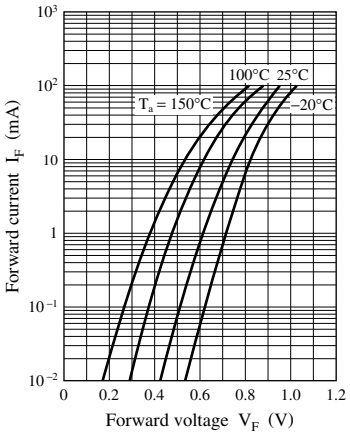




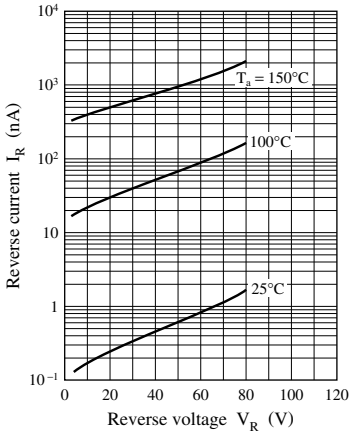
Note) The part numbers in the parenthesis show conventional part number.

Characteristics charts of MA3J142D

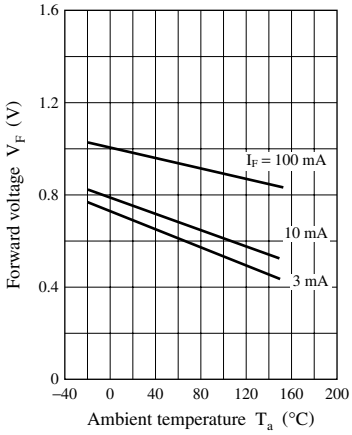
I_F — V_F



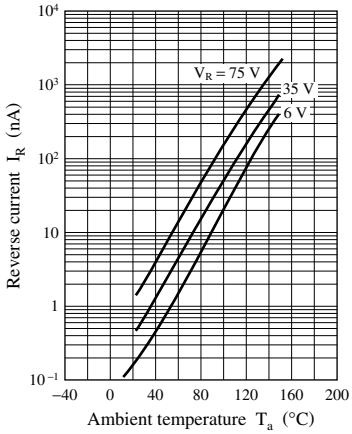
I_R — V_R



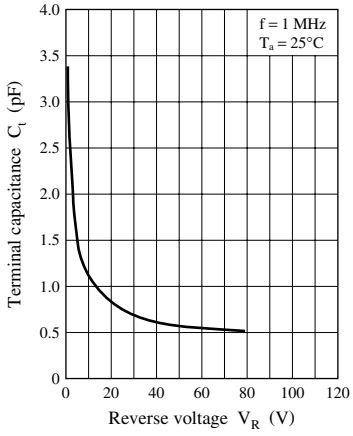
V_F — T_a



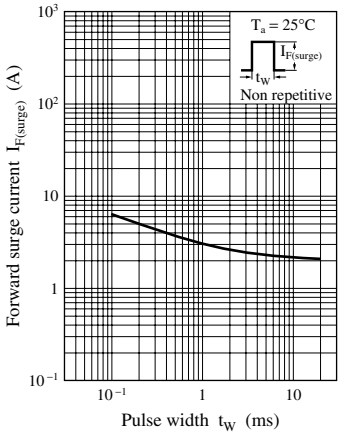
I_R — T_a



C_t — V_R

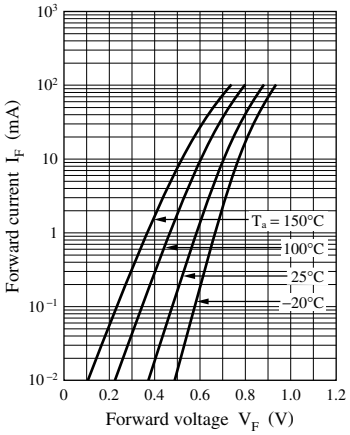


$I_{F(surge)}$ — t_W

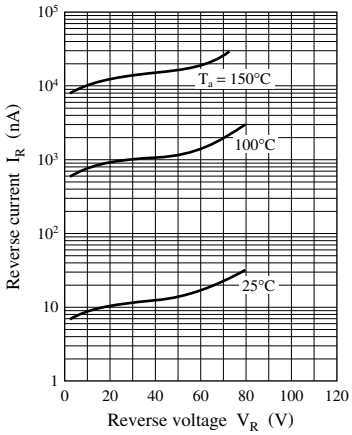


Characteristics charts of MA3J142E

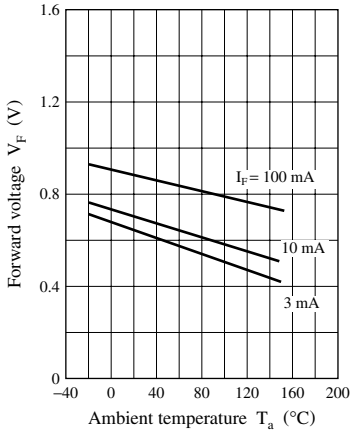
I_F — V_F



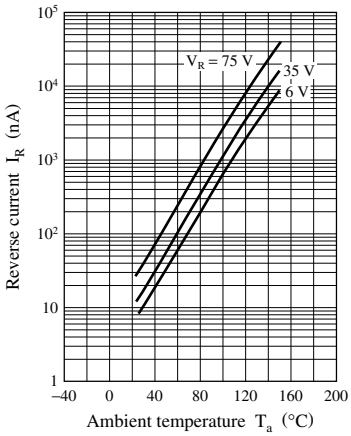
I_R — V_R



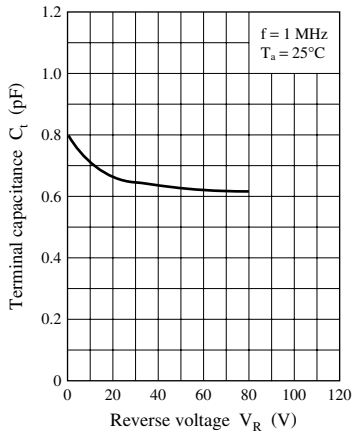
V_F — T_a



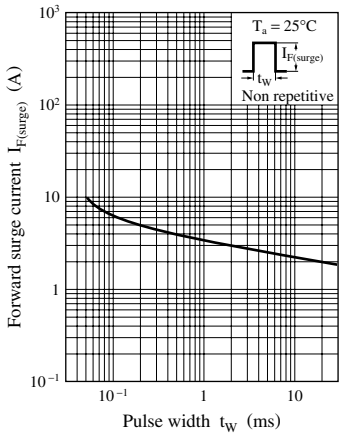
I_R — T_a



C_t — V_R



$I_{F(surge)}$ — t_W



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