

MA3J142A (MA142A), MA3J142K (MA142K)

Silicon epitaxial planar type

For switching circuits

■ Features

- Allowing high-density mounting
- Short reverse recovery time t_{rr}
- Small terminal capacitance C_t

■ Absolute Maximum Ratings $T_a = 25^\circ\text{C}$

Parameter	Symbol	Rating	Unit
Reverse voltage	V_R	80	V
Maximum peak reverse voltage	V_{RM}	80	V
Forward current	I_F	100	mA
Peak forward current	I_{FM}	225	mA
Non-repetitive peak forward surge current *	I_{FSM}	500	mA
Junction temperature	T_j	150	$^\circ\text{C}$
Storage temperature	T_{sig}	-55 to +150	$^\circ\text{C}$

Note) *: $t = 1\text{ s}$

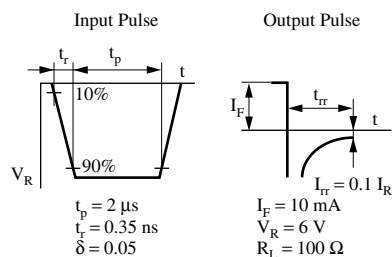
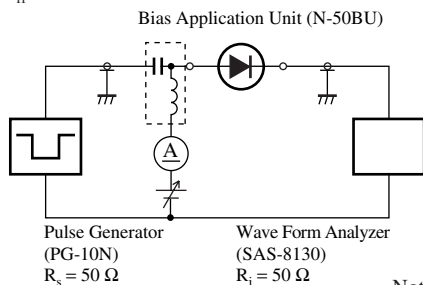
■ Electrical Characteristics $T_a = 25^\circ\text{C} \pm 3^\circ\text{C}$

Parameter	Symbol	Conditions	Min	Typ	Max	Unit
Forward voltage	V_F	$I_F = 100\text{ mA}$			1.2	V
Reverse voltage	V_R	$I_R = 100\ \mu\text{A}$	80			V
Reverse current	I_R	$V_R = 75\text{ V}$			100	nA
Terminal capacitance	MA3J142A	$V_R = 0\text{ V}, f = 1\text{ MHz}$			15	pF
	MA3J142K				2	
Reverse recovery time *	MA3J142A	$I_F = 10\text{ mA}, V_R = 6\text{ V}$ $I_{rr} = 0.1 I_R, R_L = 100\ \Omega$			10	ns
	MA3J142K				3	

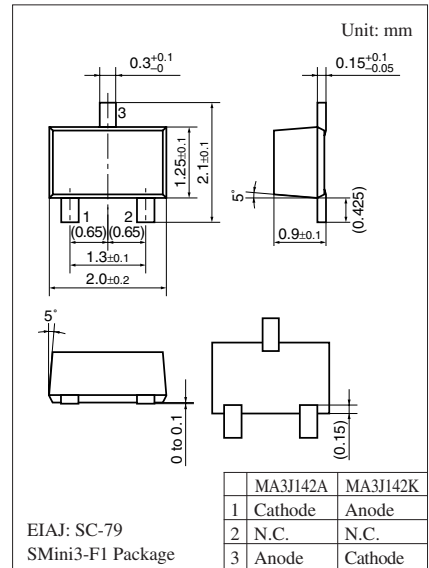
Note) 1. Measuring methods are based on JAPANESE INDUSTRIAL STANDARD JIS C 7031 measuring methods for diodes.

2. Absolute frequency of input and output is 100 MHz.

3. *: t_{rr} measurement circuit



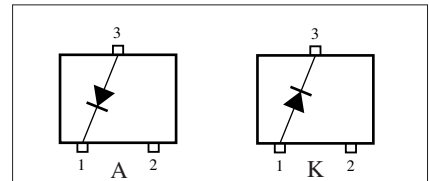
Note) The part numbers in the parenthesis show conventional part number.



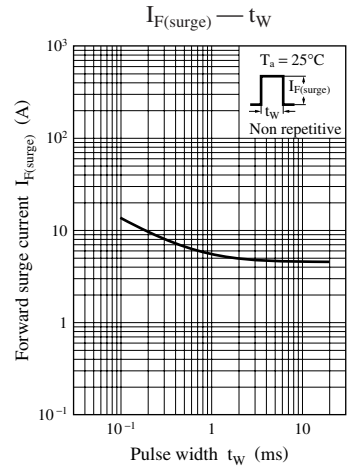
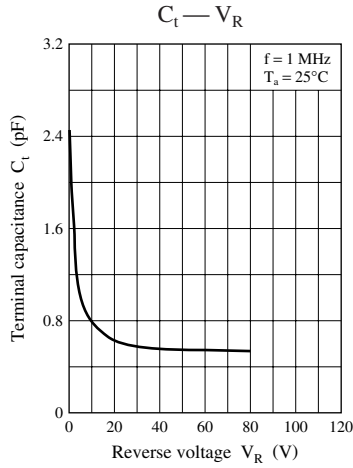
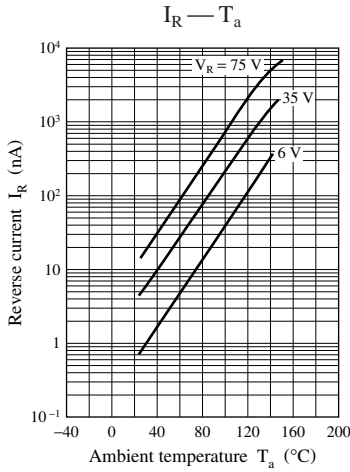
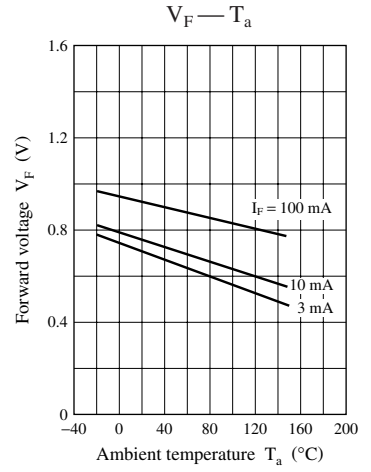
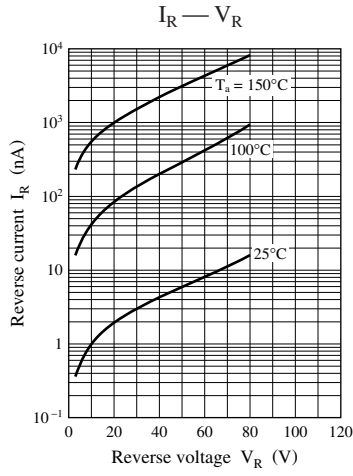
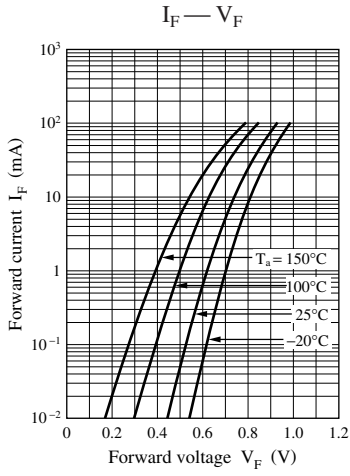
Marking Symbol:

- MA3J142A: MB
- MA3J142K: MI

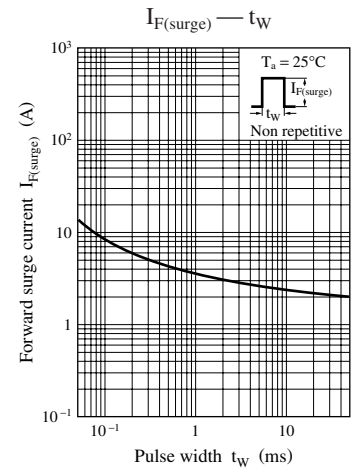
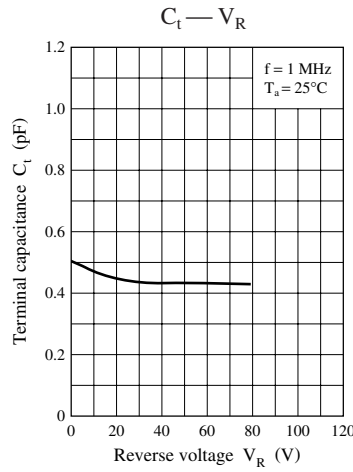
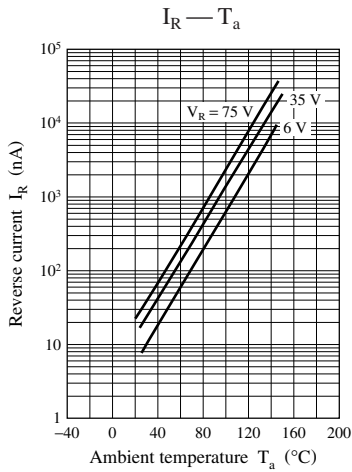
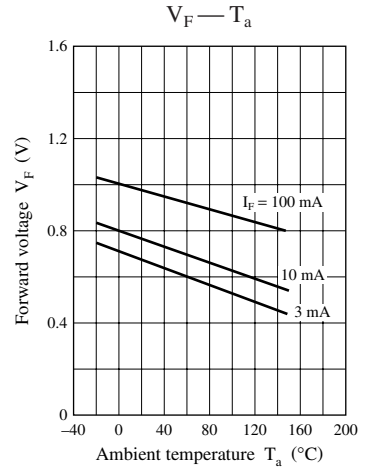
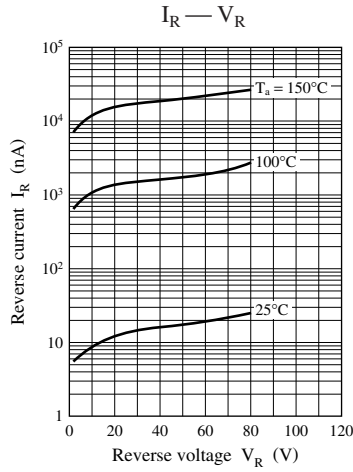
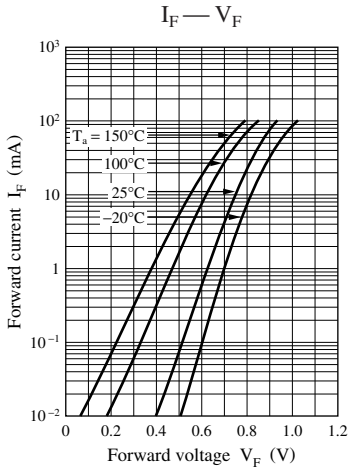
Internal Connection



Characteristics charts of MA3J142A



Characteristics charts of MA3J142K



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