

# 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	$T_{stg}$	-55 to +150	$^\circ\text{C}$

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

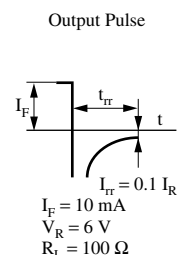
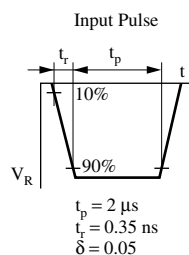
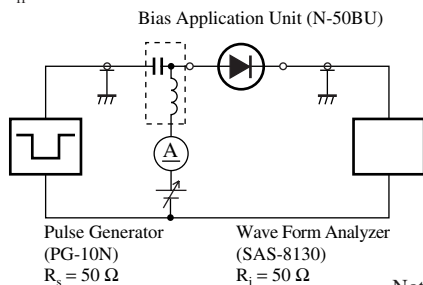
■ Electrical Characteristics  $T_a = 25^\circ\text{C} \pm 3^\circ\text{C}$

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	

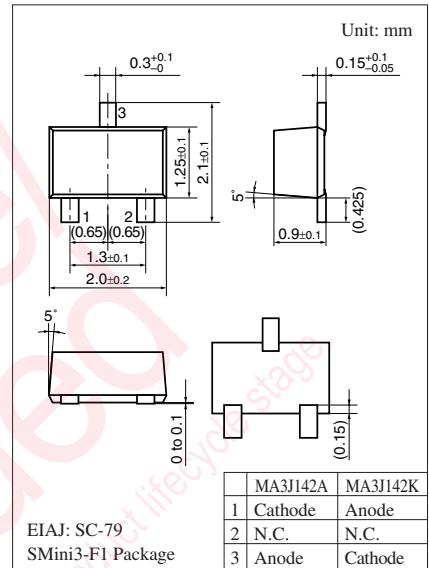
Note) 1. Measuring methods are based on JAPANESE INDUSTRIAL STANDARD JIS C 7031 measuring methods for diodes.

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

3. \*:  $t_{rr}$  measurement circuit



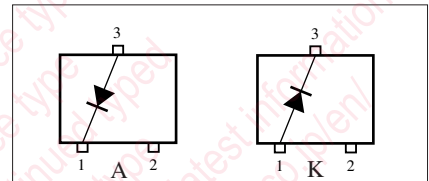
Note) The part numbers in the parenthesis show conventional part number.



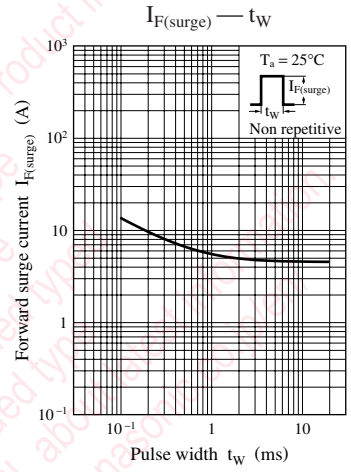
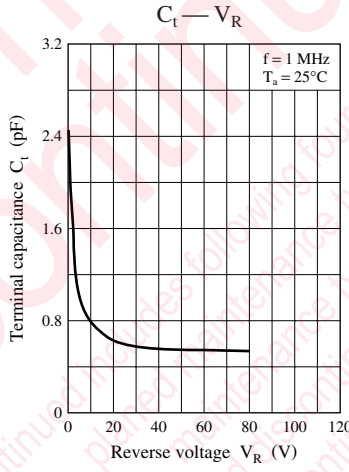
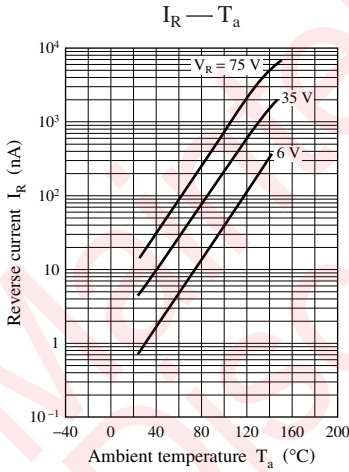
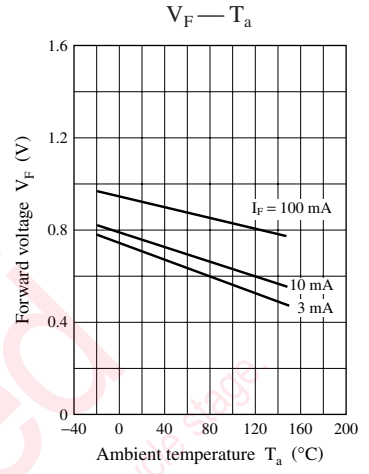
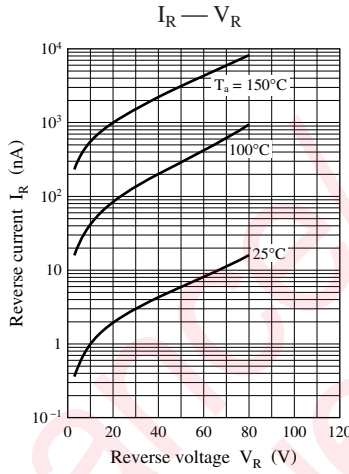
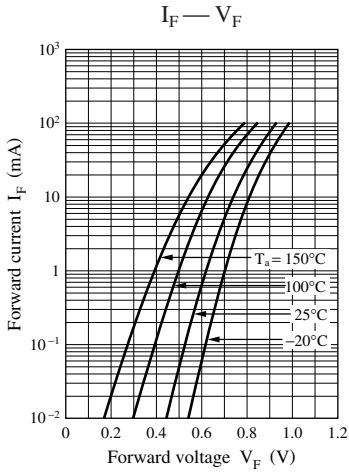
Marking Symbol:

- MA3J142A: MB
- MA3J142K: MI

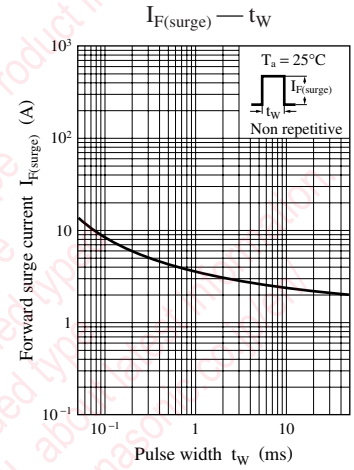
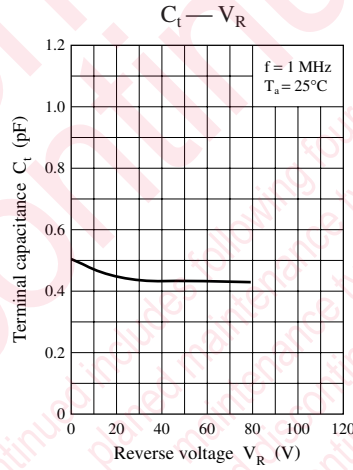
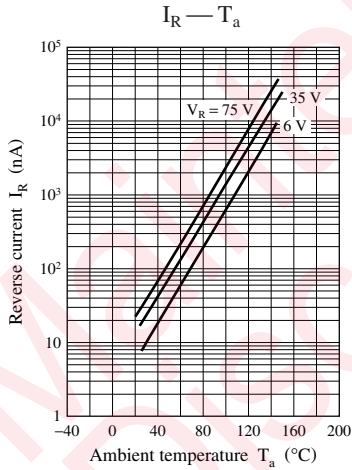
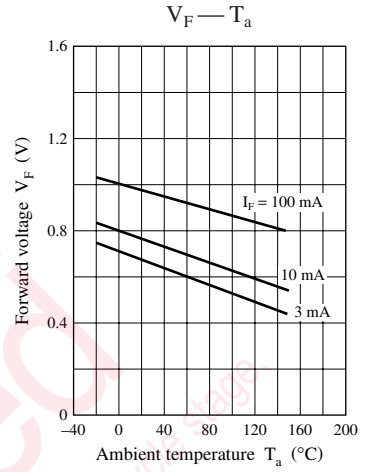
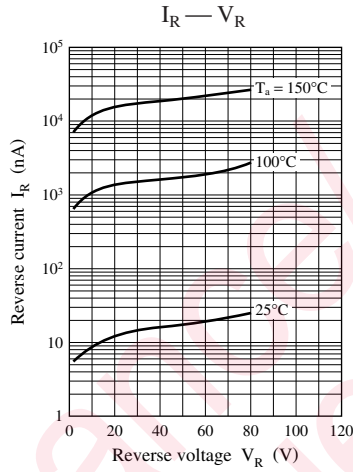
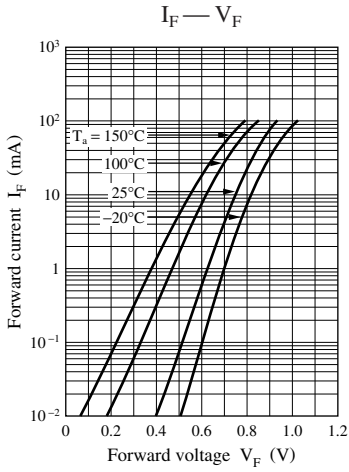
Internal Connection



Characteristics charts of MA3J142A



Characteristics charts of MA3J142K



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