

# MA3J142A

Silicon epitaxial planar type

For switching circuits

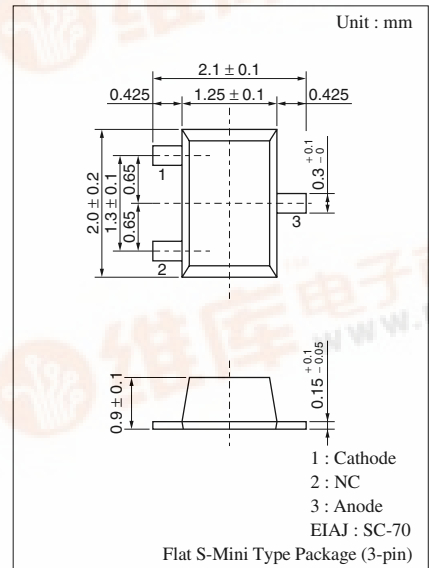
### Features

- Small S-mini type package allowing high density mounting

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

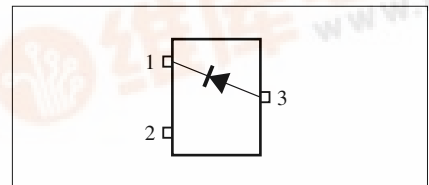
Parameter	Symbol	Rating	Unit
Reverse voltage (DC)	$V_R$	80	V
Peak reverse voltage	$V_{RM}$	80	V
Forward current (DC)	$I_F$	100	mA
Peak forward current	$I_{FM}$	225	mA
Non-repetitive peak forward surge current*	$I_{FSM}$	500	mA
Junction temperature	$T_j$	150	$^\circ\text{C}$
Storage temperature	$T_{stg}$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

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



Marking Symbol: MB

Internal Connection



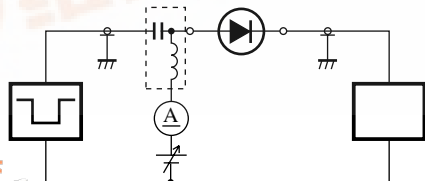
### Electrical Characteristics $T_a = 25^\circ\text{C}$

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

Note) 1. Rated input/output frequency: 100 MHz

2. \* :  $t_{rr}$  measuring circuit

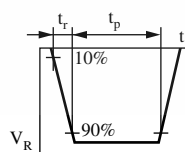
Bias Application Unit N-50BU



Pulse Generator (PG-10N)  
 $R_s = 50 \Omega$

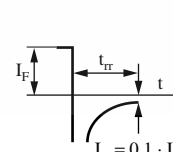
W.F. Analyzer (SAS-8130)  
 $R_i = 50 \Omega$

Input Pulse



$t_p = 2 \mu\text{s}$   
 $t_r = 0.35 \text{ ns}$   
 $\delta = 0.05$

Output Pulse



$I_F = 10 \text{ mA}$   
 $V_R = 6 \text{ V}$   
 $R_L = 100 \Omega$

