

# MA6X123 (MA123)

Silicon epitaxial planar type

For switching circuit

### ■ Features

- Four-element contained in one package, allowing high-density mounting
- Centrosymmetrical wiring, allowing to free from the taping direction
- 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 (DC)	$V_R$	80	V
Peak reverse voltage	$V_{RM}$	80	V
Average forward current* <sup>1</sup>	$I_F$	100	mA
Peak forward current* <sup>1</sup>	$I_{FM}$	225	mA
Non-repetitive peak forward surge current* <sup>1,2</sup>	$I_{FSM}$	500	mA
Junction temperature	$T_j$	150	$^\circ\text{C}$
Storage temperature	$T_{stg}$	-55 to +150	$^\circ\text{C}$

Note) \*1 : Value for single diode

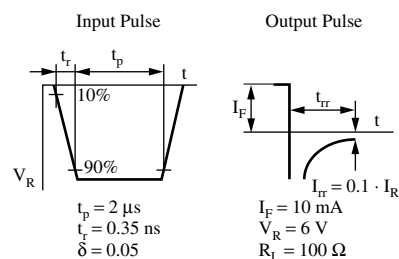
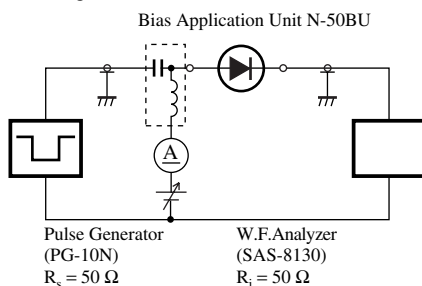
\*2 :  $t = 1 \text{ s}$

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

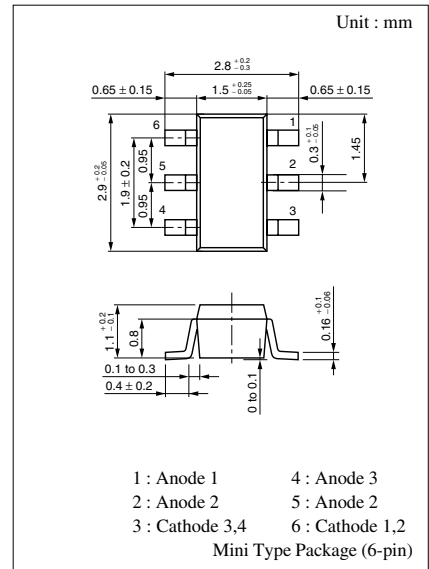
Parameter	Symbol	Conditions	Min	Typ	Max	Unit
Reverse current (DC)	$I_R$	$V_R = 75 \text{ V}$			100	nA
Forward voltage (DC)	$V_F$	$I_F = 100 \text{ mA}$			1.2	V
Reverse voltage (DC)	$V_R$	$I_R = 100 \mu\text{A}$	80			V
Terminal capacitance	$C_t$	$V_R = 0 \text{ V}, f = 1 \text{ MHz}$			2	pF
Reverse recovery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

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

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

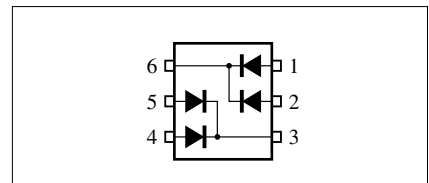


Note) The part number in the parenthesis shows conventional part number.

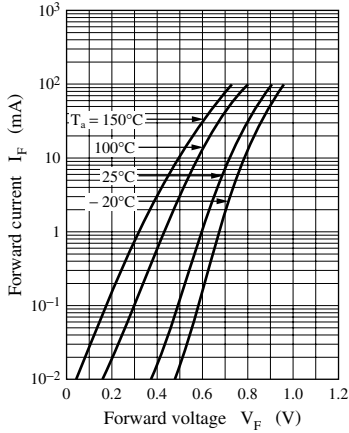


Marking Symbol: M2B

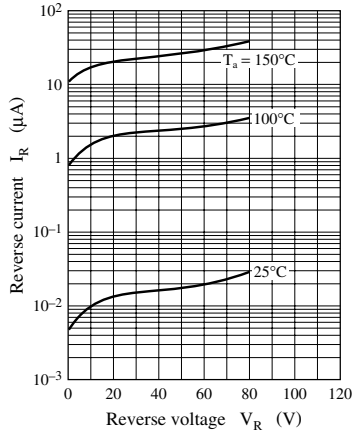
Internal Connection



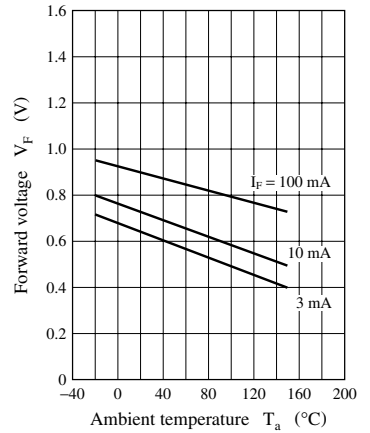
$I_F - V_F$



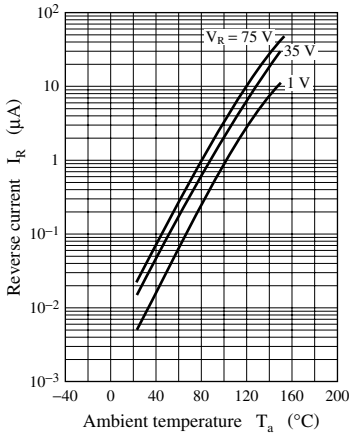
$I_R - V_R$



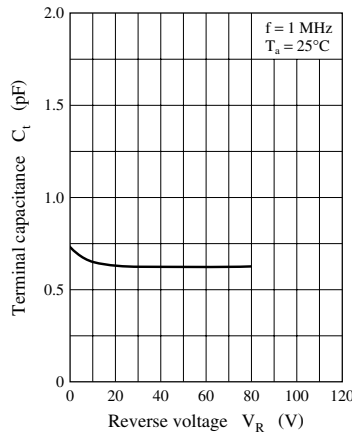
$V_F - T_a$



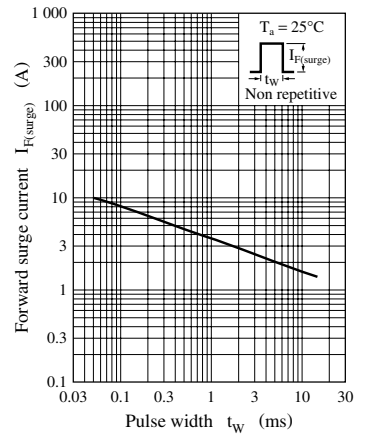
$I_R - T_a$



$C_t - V_R$



$I_{F(\text{surge})} - t_w$



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