

# MA3J745D (MA745WA)

Silicon epitaxial planar type

For switching

■ Features

- Two elements are contained in one package, allowing highdensity mounting
- Low forward voltage  $V_F$ , optimum for low voltage rectification
- Optimum for high frequency rectification because of its short reverse recovery time  $t_{rr}$

■ Package

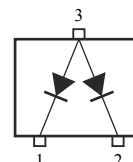
- Code  
SMini3-F1
- Pin Name  
1: Cathode 1  
2: Cathode 2  
3: Anode

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

Parameter	Symbol	Rating	Unit
Reverse voltage	$V_R$	30	V
Maximum peak reverse voltage	$V_{RM}$	30	V
Forward current	Single	30	mA
	Double	20	
Peak forward current	Single	150	mA
	Double	110	
Junction temperature	$T_j$	125	$^\circ\text{C}$
Storage time	$T_{stg}$	-55 to +125	$^\circ\text{C}$

■ Marking Symbol: M3E

■ Internal Connection

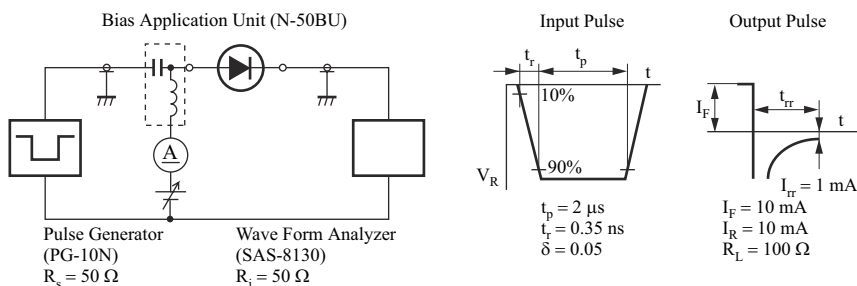


■ Electrical Characteristics  $T_a = 25^\circ\text{C} \pm 3^\circ\text{C}$

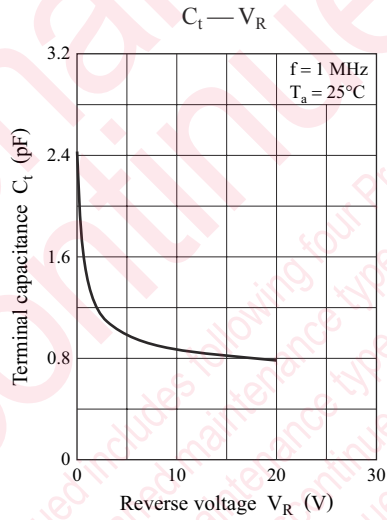
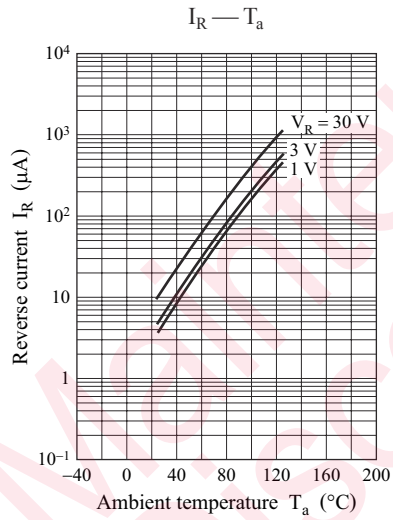
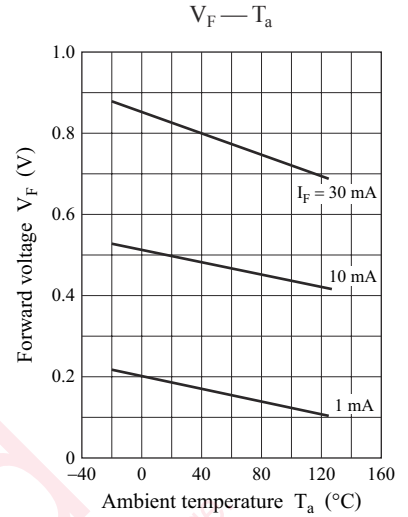
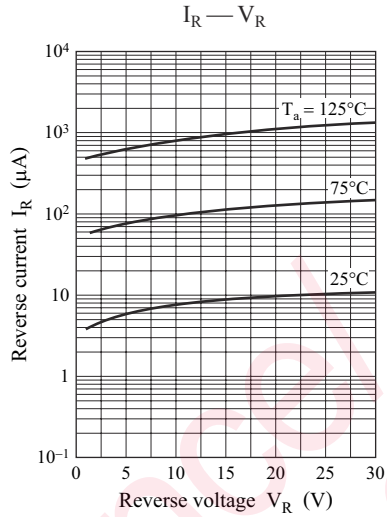
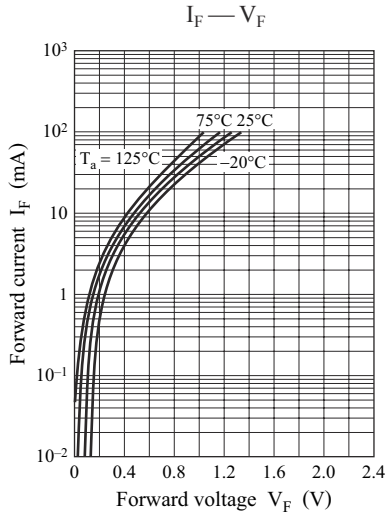
Parameter	Symbol	Conditions	Min	Typ	Max	Unit
Forward voltage	$V_{F1}$	$I_F = 1 \text{ mA}$			0.3	V
	$V_{F2}$	$I_F = 30 \text{ mA}$			1.0	
Reverse current	$I_R$	$V_R = 30 \text{ V}$			30	$\mu\text{A}$
Terminal capacitance	$C_t$	$V_R = 1 \text{ V}, f = 1 \text{ MHz}$		1.5		pF
Reverse recovery time *	$t_{rr}$	$I_F = I_R = 100 \text{ mA}, I_{rr} = 10 \text{ mA}, R_L = 100 \Omega$		1.0		ns
Detection efficiency	$\eta$	$V_{IN} = 3 V_{(peak)}, f = 30 \text{ MHz}, R_L = 3.9 \text{ k}\Omega, C_L = 10 \text{ pF}$		65		%

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

2. This product is sensitive to electric shock (static electricity, etc.). Due attention must be paid on the charge of a human body and the leakage of current from the operating equipment.
3. Absolute frequency of input and output is 2 GHz
4. \*:  $t_{rr}$  measurement circuit

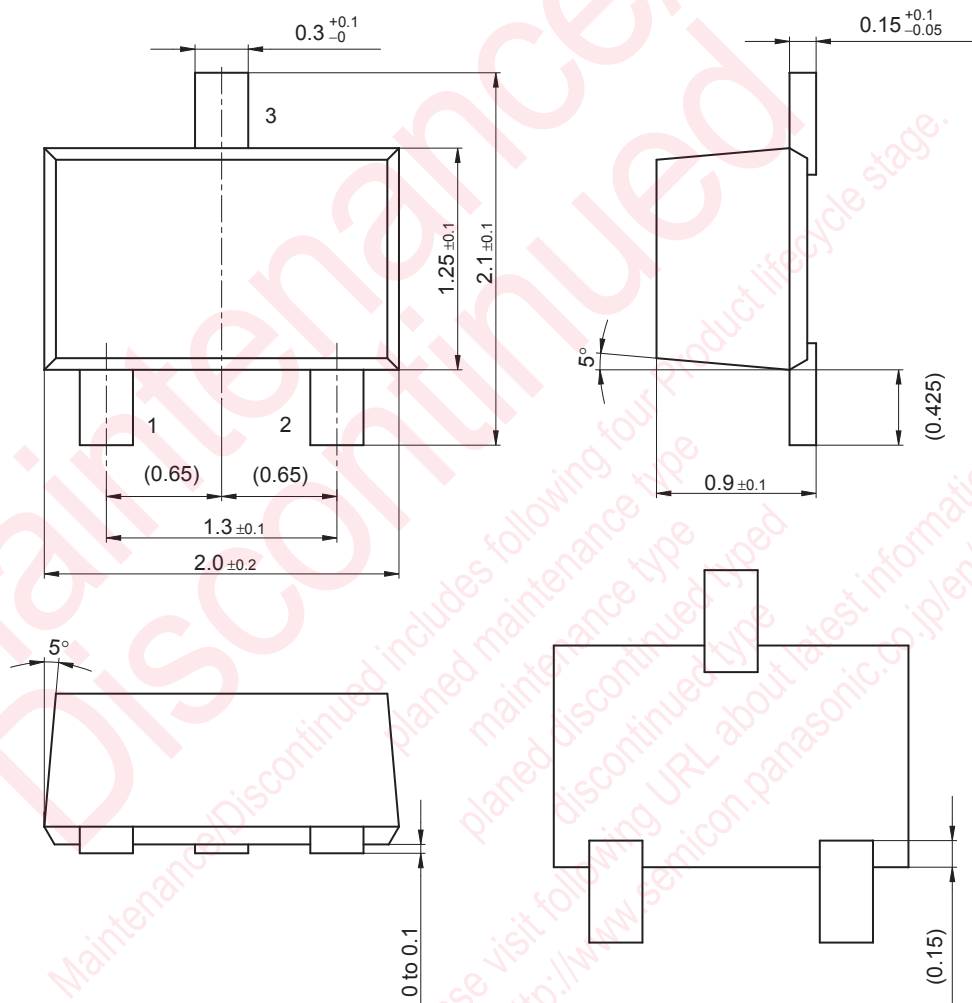


Note) The part number in the parenthesis shows conventional part number.



SMini3-F1

Unit: mm



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