

MA745WK

Silicon epitaxial planer type

For the switching circuit

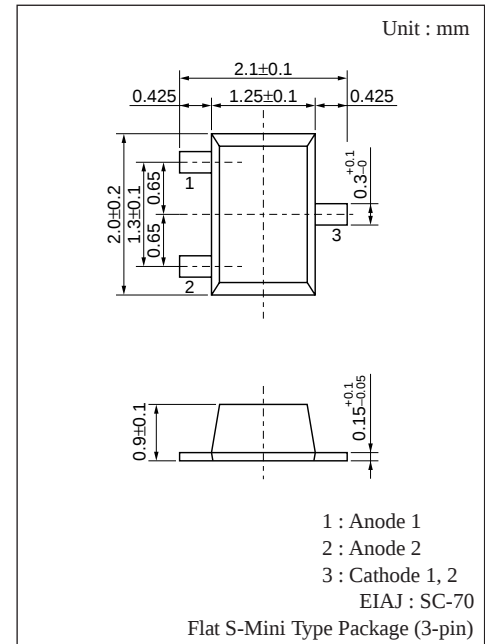
■ Features

- Small S-Mini package with two elements for high-density mounting
- Low forward rise voltage V_F , optimum for low-voltage rectification
- Fast reverse recovery time t_{rr} , optimum for high-frequency rectification

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

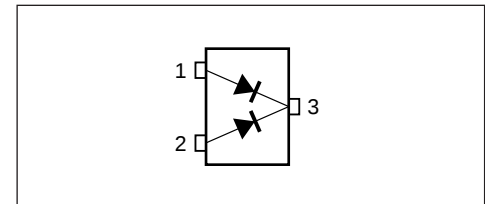
Parameter	Symbol	Rating	Unit
Reverse voltage (DC)	V_R	30	V
Peak reverse voltage	V_{RM}	30	V
Forward current (DC)	Single	30	mA
	Double	20*	
Peak forward current	Single	150	mA
	Double	110*	
Junction temperature	T_j	125	$^\circ\text{C}$
Storage temperature	T_{stg}	- 55 to + 125	$^\circ\text{C}$

* Use value per chip



Marking Symbol : M3D

■ Internal Connection



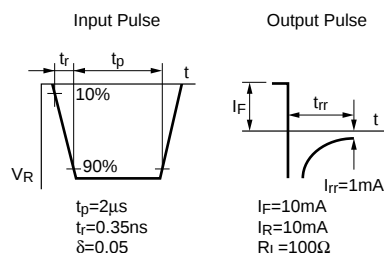
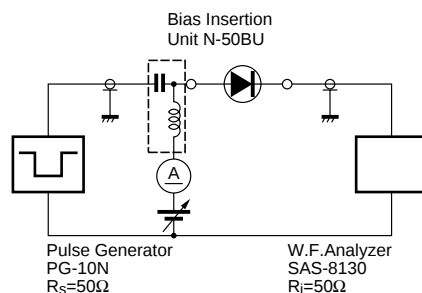
■ Electrical Characteristics ($T_a = 25^\circ\text{C}$)

Parameter	Symbol	Condition	min	typ	max	Unit
Reverse current (DC)	I_R	$V_R = 30\text{V}$			50	μA
Forward voltage (DC)	V_{F1}	$I_F = 1\text{mA}$			0.3	V
	V_{F2}	$I_F = 30\text{mA}$			1.0	V
Terminal capacitance	C_t	$V_R = 1\text{V}, f = 1\text{MHz}$		1.5		pF
Reverse recovery time	t_{rr}^*	$I_F = I_R = 100\text{mA}$		1.0		ns
Detection efficiency	η	$V_{in} = 3V_{(peak)}, f = 30\text{MHz}$		65		%

Note 1. Schottky barrier diode is sensitive to electric shock (static electricity, etc.). Due attention must be paid on charge of a human body and leakage from the equipment used.

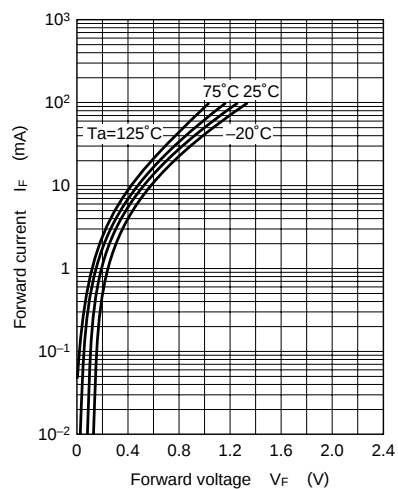
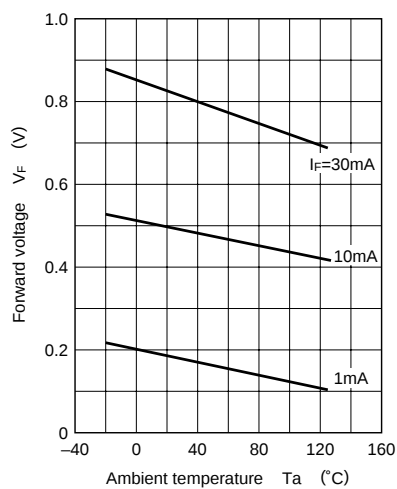
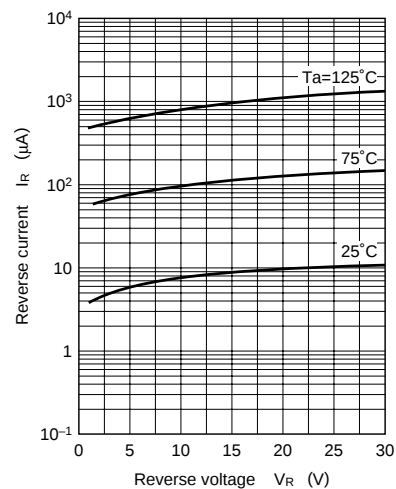
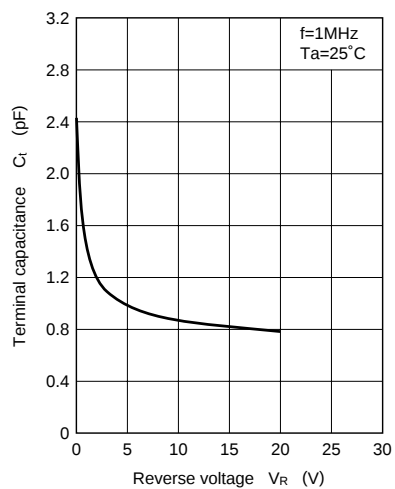
2. Rated input/output frequency : 2000MHz

3. * t_{rr} measuring circuit



■ Marking



$I_F - V_F$  $V_F - T_a$  $I_R - V_R$  $C_t - V_R$  $I_R - T_a$ 