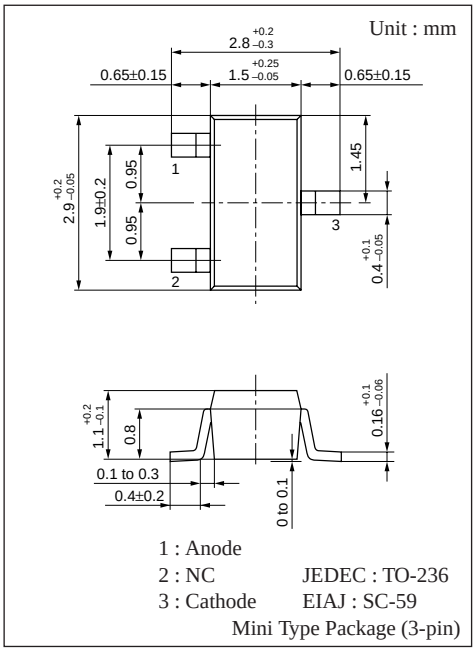
MA748

Silicon epitaxial planer type

For high-frequency rectification

■ Features

- Low V_F type of MA720
- Low V_F (forward rise voltage) with high rectification efficiency
- Fast reverse recovery time t_{rr}, optimum for high-frequency rectification



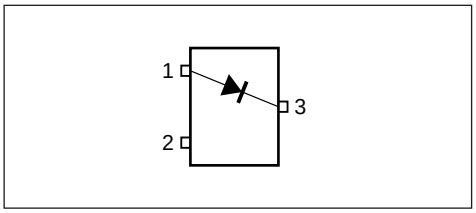
Marking Symbol : M4E

■ Absolute Maximum Ratings (Ta= 25˚C)

Parameter	Symbol	Rating	Unit
Reverse voltage (DC)	V_R	20	V
Repetitive peak reverse voltage	V_{RRM}	20	V
Average forward current	$I_{F(AV)}$	500	mA
Non-repetitive peak forward surge current	I_{FSM}*	3	A
Junction temperature	T_j	125	˚C
Storage temperature	T_{stg}	– 55 to +125	˚C

* 50Hz sine wave, one-cycle wave, high value (non-repetitive)

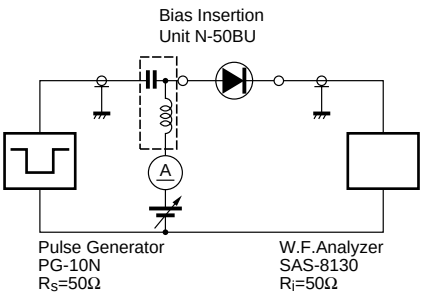
■ Internal Connection

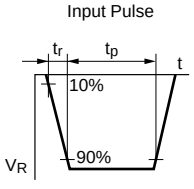


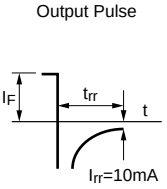
■ Electrical Characteristics (Ta= 25˚C)

Parameter	Symbol	Condition	min	typ	max	Unit
Reverse current (DC)	I_R	V_R=10V			30	µA
Forward voltage (DC)	V_{F1}	I_F=500mA			0.5	V
	V_{F2}	I_F=10mA			0.3	V
Terminal capacitance	C_t	V_R = 0V, f=1MHz		60		pF
Reverse recovery time	t_{rr}*	I_F = I_R=100mA I_{rr}=10mA, R_L=100Ω		5		ns

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 : 400MHz
3. * t_{rr} measuring circuit

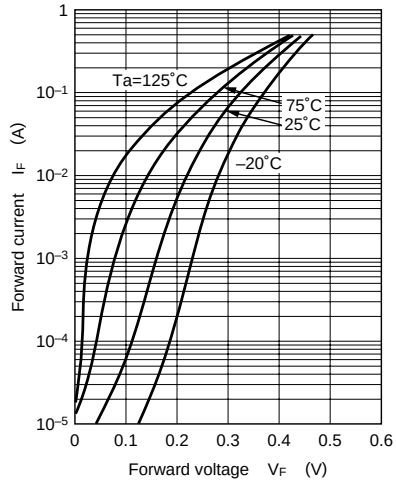




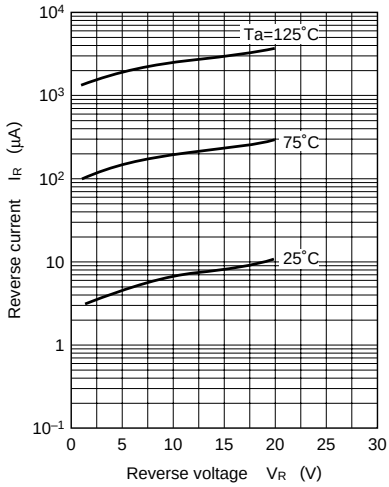


■ Marking

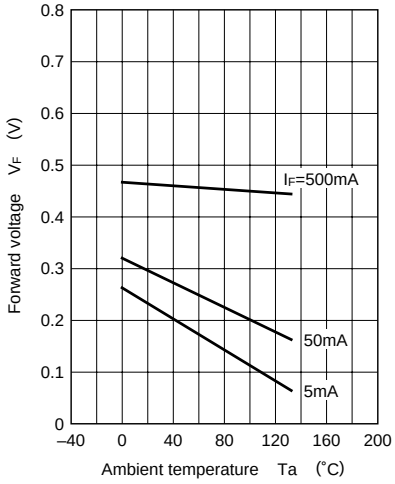
$I_F - V_F$



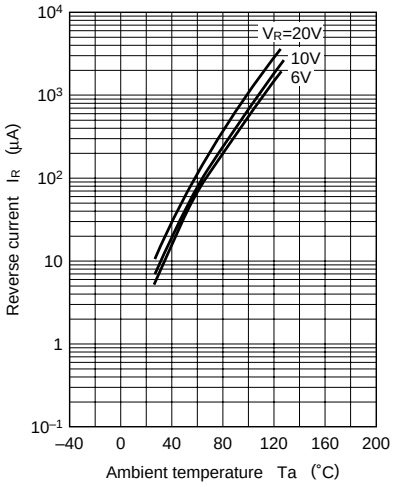
$I_R - V_R$



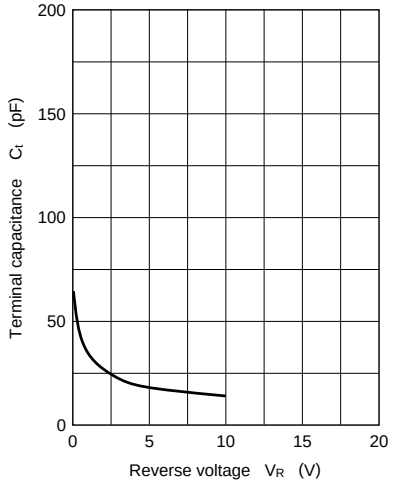
$V_F - Ta$



$I_R - Ta$



$C_t - V_R$



$I_{F(surge)} - t_W$