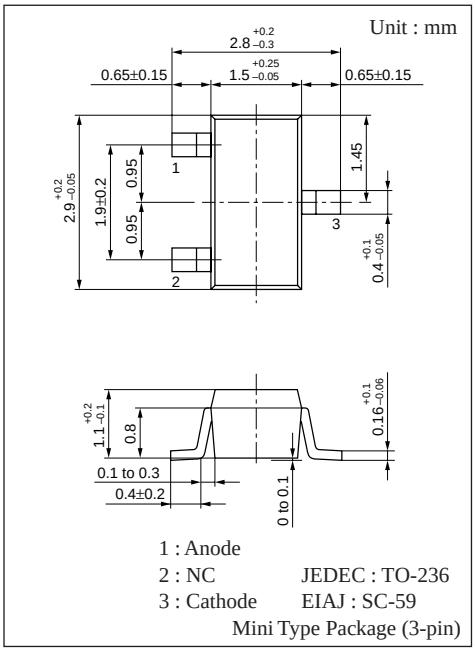
MA10701

Silicon epitaxial planer type

For high-frequency rectification

■ Features

- Mini type package (3-pin)
- $I_{F(AV)}$= 700mA rectification possible



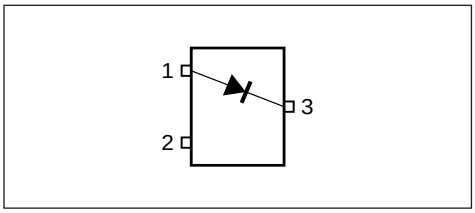
Marking Symbol : M4P

■ Absolute Maximum Ratings (Ta= 25˚C)

Parameter	Symbol	Rating	Unit
Reverse voltage (DC)	V_R	30	V
Repetitive peak reverse voltage	V_{RRM}	30	V
Average forward current	$I_{F(AV)}$	700	mA
Non-repetitive peak forward surge current	I_{FSM}*	5	A
Junction temperature	T_j	125	˚C
Storage temperature	T_{stg}	– 55 to + 150	˚C

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

■ Internal Connection



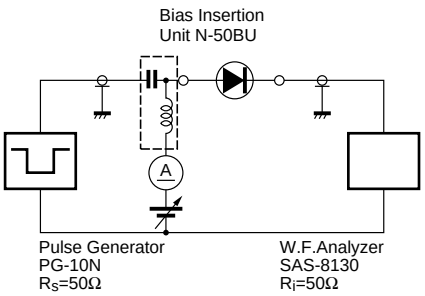
■ Electrical Characteristics (Ta= 25˚C)

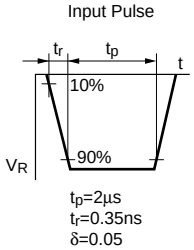
Parameter	Symbol	Condition	min	typ	max	Unit
Reverse current (DC)	I_R	V_R= 30V			80	µA
Forward voltage (DC)	V_F	I_F = 700mA			0.55	V
Terminal capacitance	C_t	V_R= 0V, f =1MHz		120		pF
Reverse recovery time	t_r*2	I_F = I_R =100mA I_{rr}= 10mA, R_L= 100Ω		7.5		ns
Thermal resistance (1)	$R_{th\ (j\text{-}a)\ (1)}$			420		˚C/W
Thermal resistance (2)	$R_{th\ (j\text{-}a)\ (1)}$*1			330		˚C/W

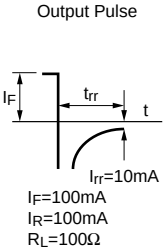
Note 1. Schottky barrier diode is sensitive to electric shock (static electricity, etc.). Due attention must be paid on charge of a human body and leakage from the equipment used.

2. Rated input/output frequency : 400MHz

3. *1 : Achieved with a printed-circuit board (copper foil area 0.8mm × 20mm)
   *2 : t_{rr} measuring circuit

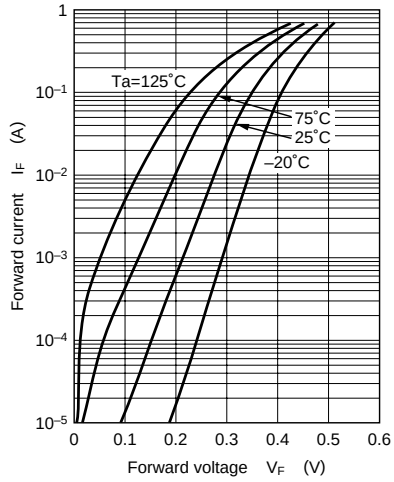




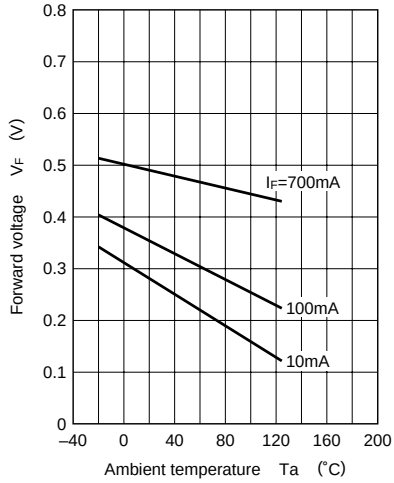


■ Marking

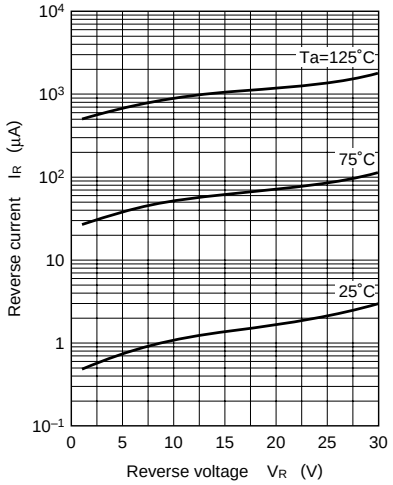
$I_F - V_F$



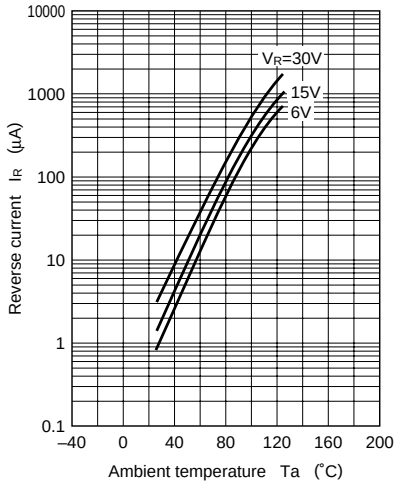
$V_F - Ta$



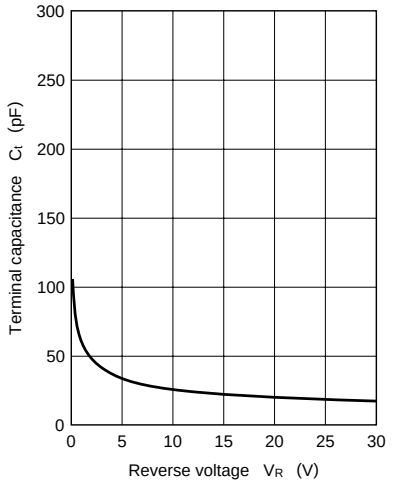
$I_R - V_R$



$I_R - Ta$



$C_t - V_R$



$I_{F(surge)} - t_W$