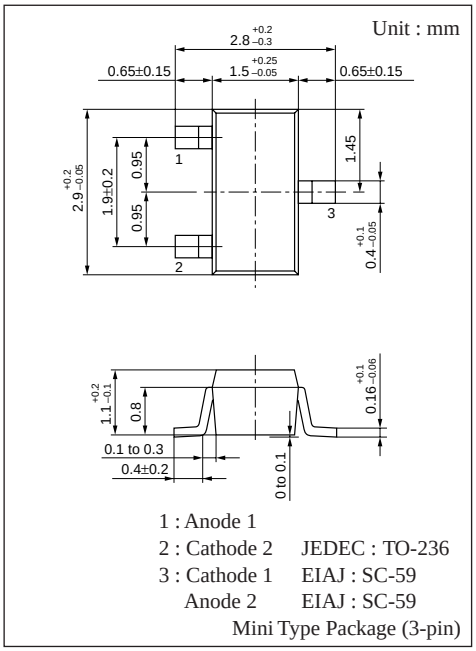
MA791

Silicon epitaxial planer type

For super high-speed switching circuit
For small current rectification

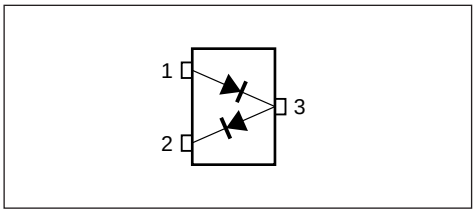
■ Features

- Two elements are incorporated in MA786 (cathode common)
- $I_{F(AV)}$=100mA rectification possible
- Fast reverse recovery time t_{rr}, optimum for high-frequency rectification
- Low V_F (forward voltage) with high rectification efficiency



Marking Symbol : M4A

■ Internal Connection



■ Absolute Maximum Ratings (Ta= 25˚C)

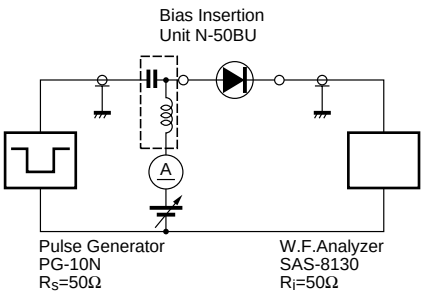
Parameter		Symbol	Rating	Unit
Reverse voltage (DC)		V_R	30	V
Repetitive peak reverse voltage		V_{RRM}	30	V
Peak forward current	Single	I_{FM}	300	mA
	Double		200*2	
Average forward current	Single	$I_{F(AV)}$	100	mA
	Double		70*2	
Non-repetitive peak forward surge current		I_{FSM}*1	1	A
Junction temperature		T_j	125	˚C
Storage temperature		T_{stg}	– 55 to +125	˚C

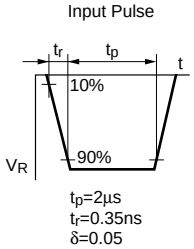
* 1 50Hz sine wave, one-cycle wave, high value (non-repetitive)
* 2 Use value per chip

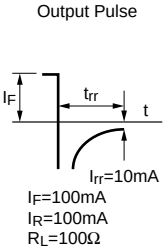
■ Electrical Characteristics (Ta= 25˚C)

Parameter	Symbol	Condition	min	typ	max	Unit
Reverse current (DC)	I_R	V_R= 30V			15	µA
Forward voltage (DC)	V_F	I_F=100mA			0.55	V
Terminal capacitance	C_t	V_R = 0V, f=1MHz		20		pF
Reverse recovery time	t_{rr}*	I_F = I_R=100mA I_{rr}= 10mA , R_L=100Ω		2		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 : 250MHz
3. * t_{rr} measuring circuit

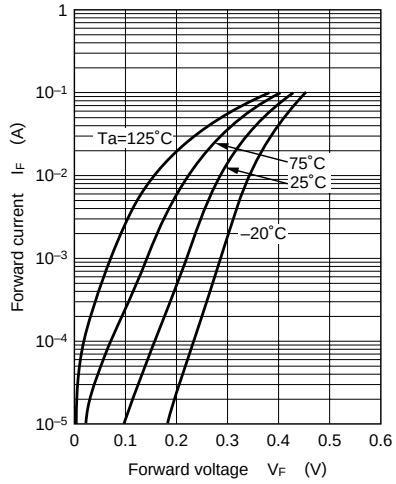




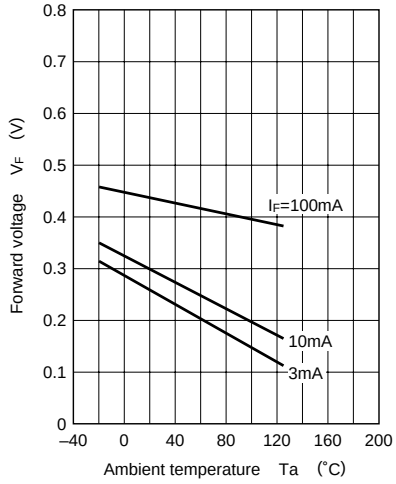


■ Marking

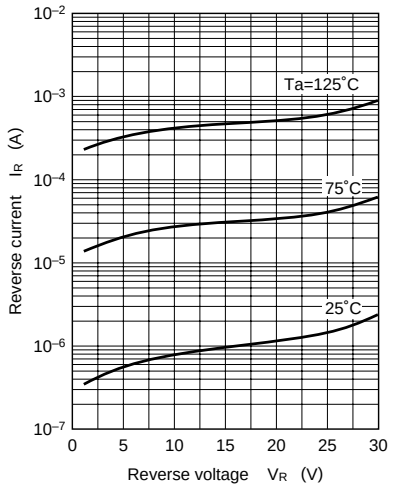
$I_F - V_F$



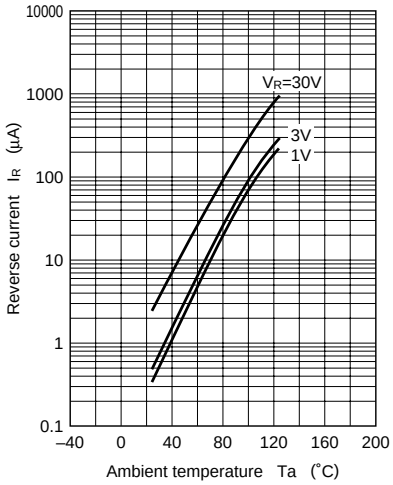
$V_F - Ta$



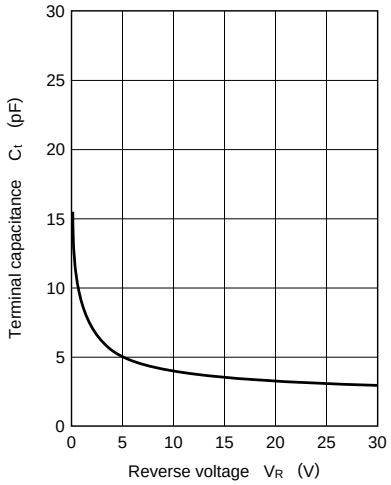
$I_R - V_R$



$I_R - Ta$



$C_t - V_R$



$I_{F(surge)} - t_W$