

MA558

Silicon epitaxial planer type

For UHF and SHF bands AGC

■ Features

- Small diode capacity C_D
- Large variable range of forward dynamic resistance r_f
- Mini package, enabling down-sizing of the equipment and automatic insertion through taping and magazine package

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

Parameter	Symbol	Rating	Unit
Reverse voltage (DC)	V_R	40	V
Peak reverse voltage	V_{RM}	45	V
Forward current (DC)	I_F	100	mA
Power dissipation	P_D	150	mW
Operating ambient temperature	T_{opr}^*	- 25 to + 85	$^\circ\text{C}$
Storage temperature	T_{stg}	- 55 to +150	$^\circ\text{C}$

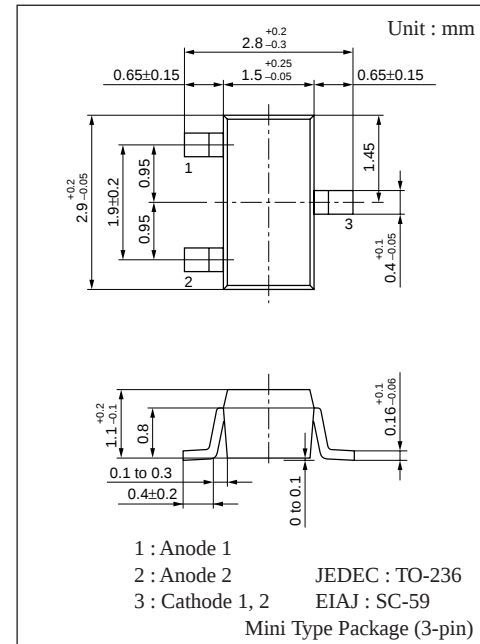
* Maximum ambient temperature during operation

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

Parameter	Symbol	Condition	min	typ	max	Unit
Reverse current (DC)	I_R	$V_R = 40\text{V}$			100	nA
Forward voltage (DC)	V_F	$I_F = 100\text{mA}$		1.05	1.2	V
Diode capacitance	C_D	$V_R = 15\text{V}$, $f = 1\text{MHz}$		0.3	0.5	pF
Forward dynamic resistance	r_{f1}^*	$I_F = 10\mu\text{A}$, $f = 100\text{MHz}$	1	2		$k\Omega$
	r_{f2}^*	$I_F = 10\text{mA}$, $f = 100\text{MHz}$		6	10	Ω

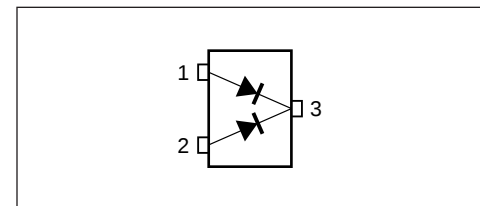
Note 1. Each characteristic is a standard for each diode
 2. Rated input/output frequency : 100MHz
 3. * r_f measurement device : YHP MODEL 4191A RF IMPEDANCE ANALYZER

■ Marking

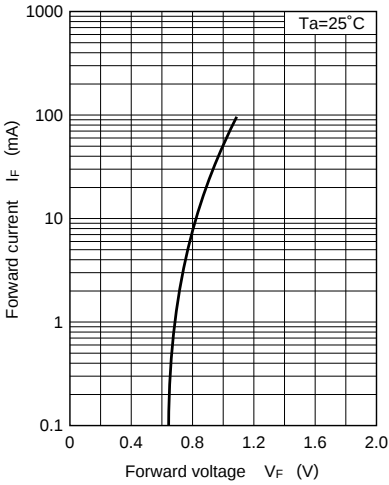


Marking Symbol : MAC

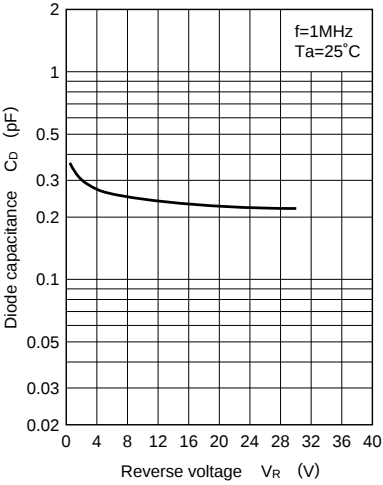
■ Internal Connection



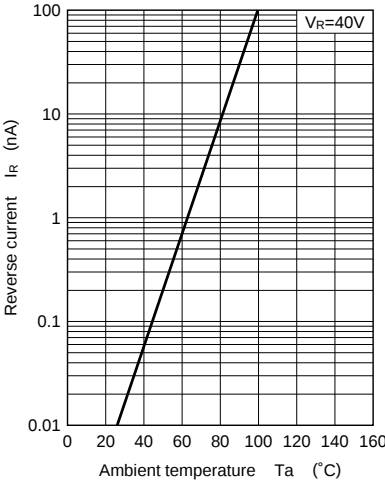
$I_F - V_F$



$C_D - V_R$



$I_R - T_a$



$r_f - I_F$

