# MA3X558 (MA558)

### Silicon epitaxial planar type

For UHF and SHF bands AGC

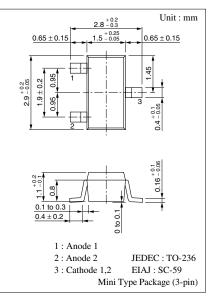
#### Features

- Small diode capacitance C<sub>D</sub>
- Large variable range of forward dynamic resistance r<sub>f</sub>
- Mini type package, allowing downsizing of equipment and automatic insertion through the taping package and magazine package

Absolute Maximum Hatings $T_a = 25$ C			
Parameter	Symbol	Rating	Unit
Reverse voltage (DC)	V <sub>R</sub>	40	V
Peak reverse voltage	V <sub>RM</sub>	45	V
Forward current (DC)	$I_{\rm F}$	100	mA
Power dissipation	P <sub>D</sub>	150	mW
Operating ambient temperature*	T <sub>opr</sub>	-25 to +85	°C
Storage temperature	T <sub>stg</sub>	-55 to +150	°C

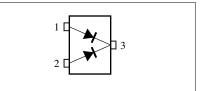
■ Absolute Maximum Ratings T<sub>a</sub> = 25°C

Note) \*: Maximum ambient temperature during operation



#### Marking Symbol: M4C

#### Internal Connection

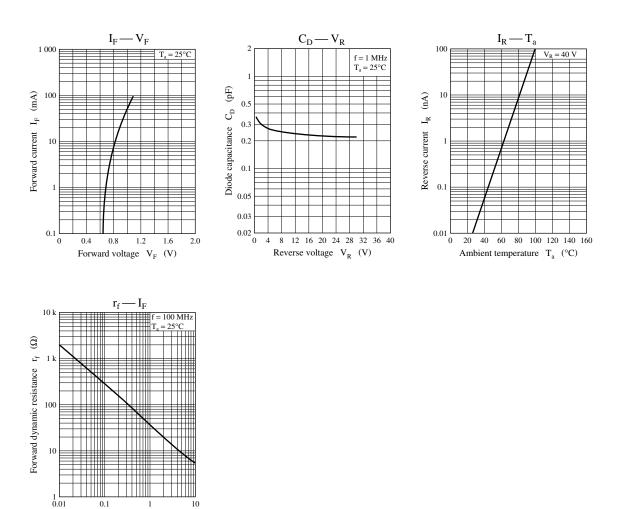


#### Electrical Characteristics $T_a = 25^{\circ}C$ Parameter Symbol Conditions Min Max Unit Тур Reverse current (DC) $V_R = 40 V$ 100 nA $I_R$ $V_{\rm F}$ Forward voltage (DC) $I_{F} = 100 \text{ mA}$ 1.05 1.2 V Diode capacitance $C_D$ $V_R = 15 V, f = 1 MHz$ 0.3 0.5 pF Forward dynamic resistance\* $I_F = 10 \ \mu A, f = 100 \ MHz$ 2 kΩ $r_{f1}$ 1 $I_F = 10 \text{ mA}, \text{ f} = 100 \text{ MHz}$ 6 10 Ω $r_{\rm f2}$

Note) 1. Rated input/output frequency: 100 MHz

2. Each characteristic is a standard for individual diode

3. \*: rf measuring instrument: YHP MODEL 4191A RF IMPEDANCE ANALYZER



Forward current I<sub>F</sub> (mA)

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