

# MA6X344 (MA344)

## Silicon epitaxial planar type

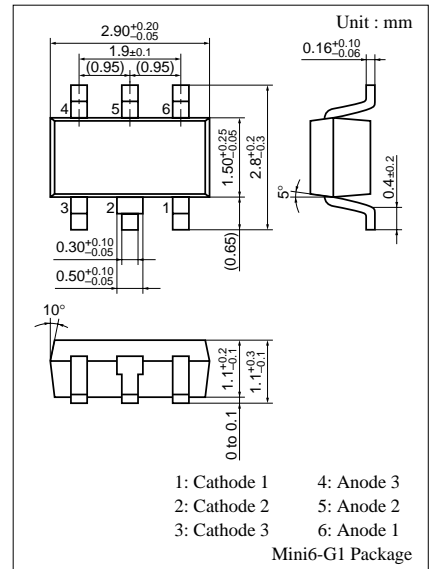
For UHF and VHF electronic tuners

### ■ Features

- Three isolated elements contained in one package
- Large capacitance variation ratio
- Small series resistance  $r_D$
- Mini type package, allowing downsizing of equipment and automatic insertion through the taping package

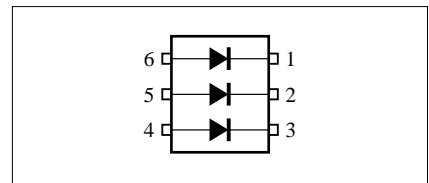
### ■ Absolute Maximum Ratings $T_a = 25^\circ\text{C}$

Parameter	Symbol	Rating	Unit
Reverse voltage (DC)	$V_R$	30	V
Peak reverse voltage	$V_{RM}$	34	V
Forward current (DC)	$I_F$	20	mA
Junction temperature	$T_j$	150	$^\circ\text{C}$
Storage temperature	$T_{stg}$	-55 to +150	$^\circ\text{C}$



Marking Symbol: 5P

Internal Connection



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

Parameter	Symbol	Conditions	Min	Typ	Max	Unit
Reverse current (DC)	$I_R$	$V_R = 30\text{ V}$			10	nA
Diode capacitance	$C_{D(3V)}$	$V_R = 3\text{ V}, f = 1\text{ MHz}$	11.233		12.781	pF
	$C_{D(25V)}$	$V_R = 25\text{ V}, f = 1\text{ MHz}$	2.020		2.367	pF
	$C_{D(10V)}$	$V_R = 10\text{ V}, f = 1\text{ MHz}$	4.358		5.422	pF
	$C_{D(17V)}$	$V_R = 17\text{ V}, f = 1\text{ MHz}$	2.567		3.100	pF
Capacitance ratio	$C_{D(3V)}/C_{D(25V)}$		4.60		6.15	—
Capacitance difference	$C_{D(17V)}/C_{D(25V)}$		0.37			pF
Diode capacitance deviation	$\Delta C$	$C_{D(3V)(10V)(17V)(25V)}$			Note)*1	%
Series resistance*2	$r_D$	$C_D = 9\text{ pF}, f = 470\text{ MHz}$	0.55		0.75	$\Omega$

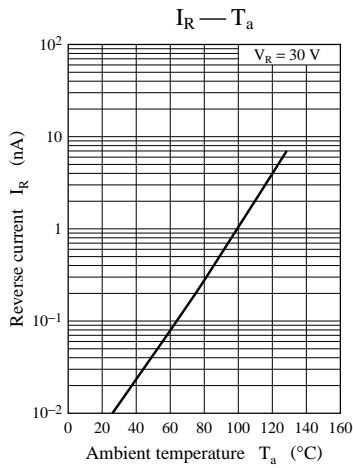
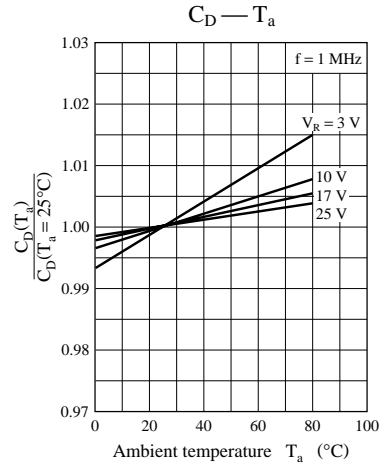
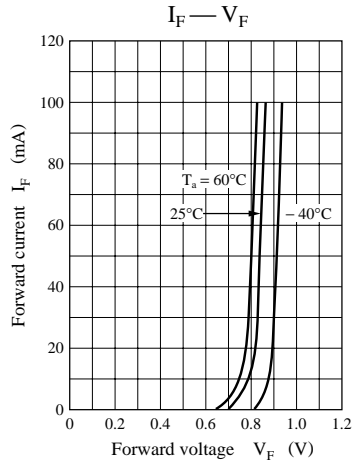
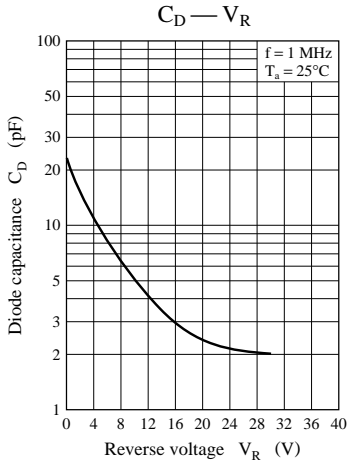
Note) 1. Rated input/output frequency: 470 MHz

2. Each characteristic is a standard for each diode.

3. \*1 : Diode capacitance deviation is controlled to 2% for the rank B and 3% or less for the rank G.

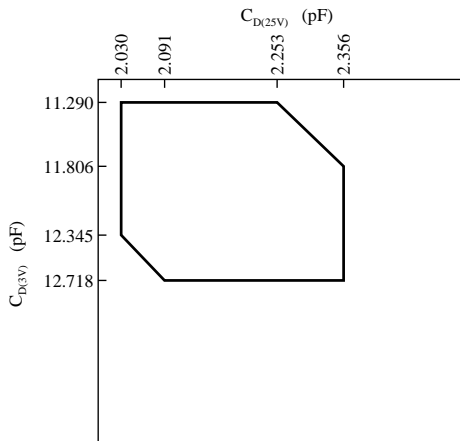
\*2 :  $r_f$  measuring instrument: YHP MODEL 4191A RF IMPEDANCE ANALYZER

Note) The part number in the parenthesis shows conventional part number.

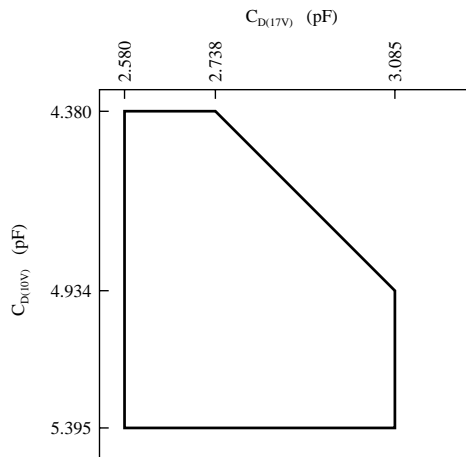


$C_D$  rank classification

Primary rank classification



Secondary rank classification



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