MA344

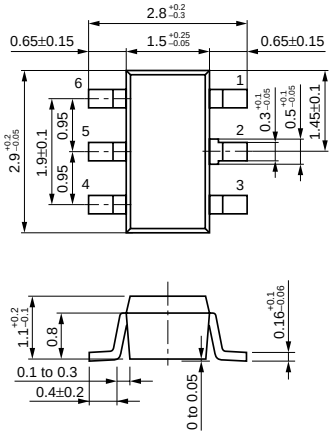
Silicon epitaxial planer type

For UHF and VHF electronic tuners

■ Features

- Three elements incorporated in one package (stand alone type)
- Large capacity variation ratio
- Small series resistance r_D
- Mini package, enabling down-sizing of the equipment and automatic insertion through taping

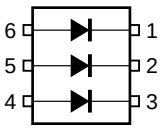
Unit : mm



1 : Cathode 1 4 : Anode 3
2 : Cathode 2 5 : Anode 2
3 : Cathode 3 6 : Anode 1
Mini Type Package (6-pin)

Marking Symbol : 5P

■ Internal Connection



■ Absolute Maximum Ratings (Ta= 25˚C)

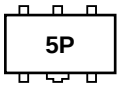
Parameter	Symbol	Rating	Unit
Reverse voltage (DC)	V_R	30	V
Peak reverse voltage	V_{RM}	34	V
Forward current (DC)	I_F	20	mA
Junction temperature	T_j	150	˚C
Storage temperature	T_{stg}	– 55 to +150	˚C

■ Electrical Characteristics (Ta= 25˚C)

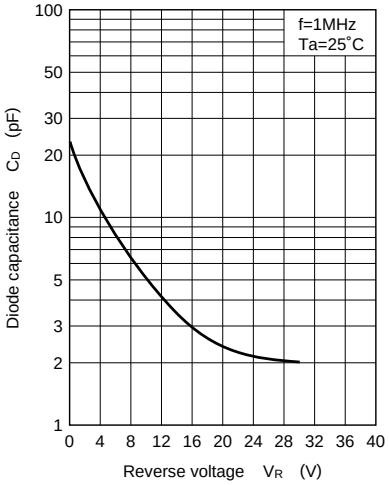
Parameter	Symbol	Condition	min	typ	max	Unit
Reverse current (DC)	I_R	V_R= 30V			10	nA
Diode capacitance	$C_{D(3V)}$	V_R= 3V, f= 1MHz	11.233		12.781	pF
	$C_{D(25V)}$	V_R= 25V, f= 1MHz	2.020		2.367	pF
	$C_{D(10V)}$	V_R= 10V, f= 1MHz	4.358		5.422	pF
	$C_{D(17V)}$	V_R= 17V, f= 1MHz	2.567		3.100	pF
Capacitance 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	ΔC	$C_{D\ (3V)\ (10V)\ (17V)\ (25V)}$			*2	%
Series resistance	r_D*	C_D= 9pF, f= 470MHz	0.55		0.75	Ω

Note 1. Rated input/output frequency : 470MHz
2. Each characteristic is a standard for 1 diode.
3. *1 : r_D measurement device : YHP MODEL 4191A RF IMPEDANCE ANALYZER
4. *2 : 3 Diode capacity deviation is controlled to 2% for the rank B and 3% or less for the rank G.

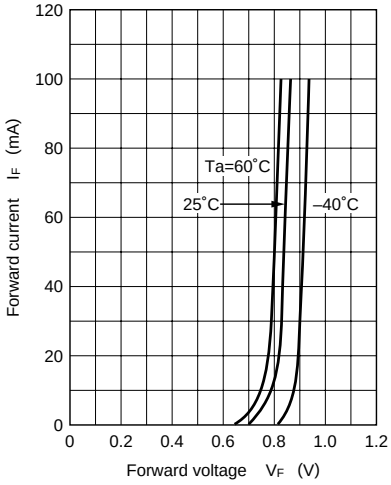
■ Marking



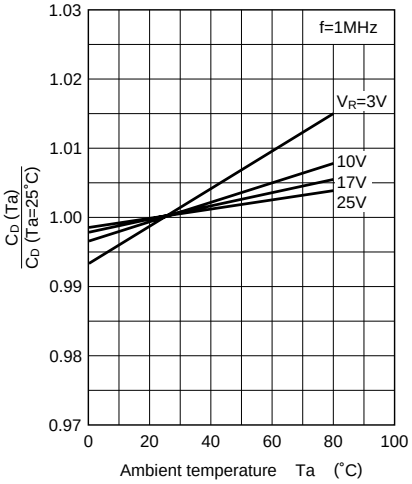
$C_D - V_R$



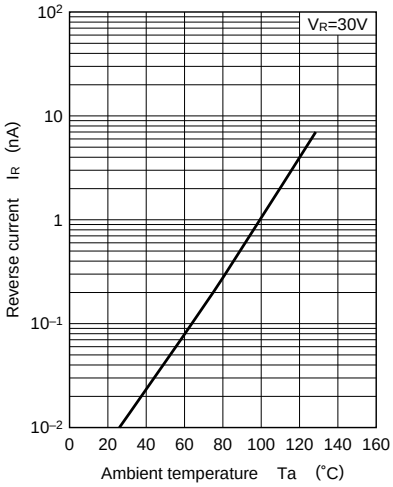
$I_F - V_F$



$C_D - Ta$

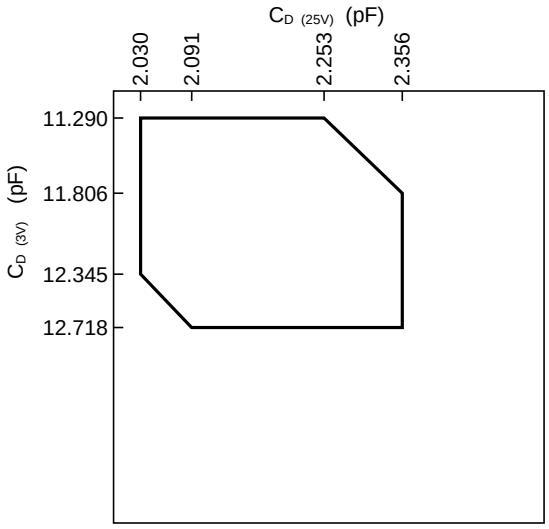


$I_R - Ta$



C_D rank classification

Primary rank classification



Secondary rank classification