

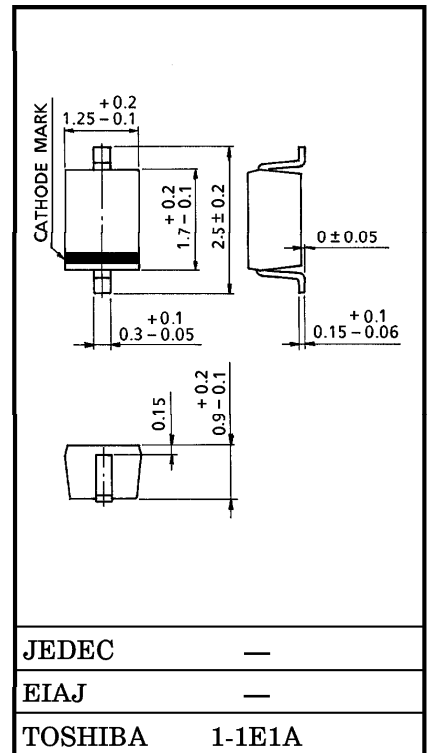
TOSHIBA VARIABLE CAPACITANCE DIODE SILICON EPITAXIAL PLANAR TYPE

1SV270

VCO FOR UHF BAND RADIO

Unit in mm

- High Capacitance Ratio : $C1V / C4V = 2.0$ (Typ.)
- Low Series Resistance : $r_s = 0.28\Omega$ (Typ.)
- Small Package



Weight : 0.004g

MAXIMUM RATINGS (Ta = 25°C)

CHARACTERISTIC	SYMBOL	RATING	UNIT
Reverse Voltage	V_R	10	V
Junction Temperature	T_j	125	°C
Storage Temperature Range	T_{stg}	-55~125	°C

ELECTRICAL CHARACTERISTICS (Ta = 25°C)

CHARACTERISTIC	SYMBOL	TEST CONDITION	MIN.	TYP.	MAX.	UNIT
Reverse Voltage	V_R	$I_R = 1\mu A$	10	—	—	V
Reverse Current	I_R	$V_R = 10V$	—	—	3	nA
Capacitance	C1V	$V_R = 1V, f = 1MHz$	15	16	17	pF
Capacitance	C4V	$V_R = 4V, f = 1MHz$	7.3	8.0	8.7	pF
Capacitance Ratio	C1V / C4V	—	1.8	2.0	—	—
Series Resistance	r_s	$V_R = 1V, f = 470MHz$	—	0.28	0.5	Ω

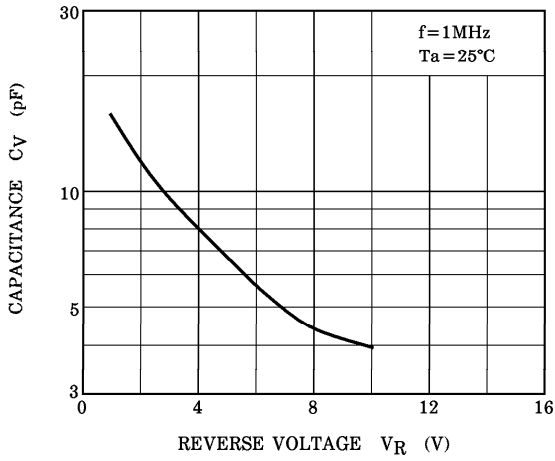
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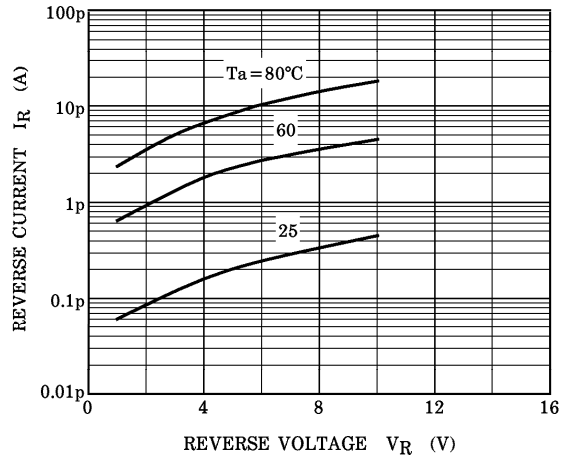
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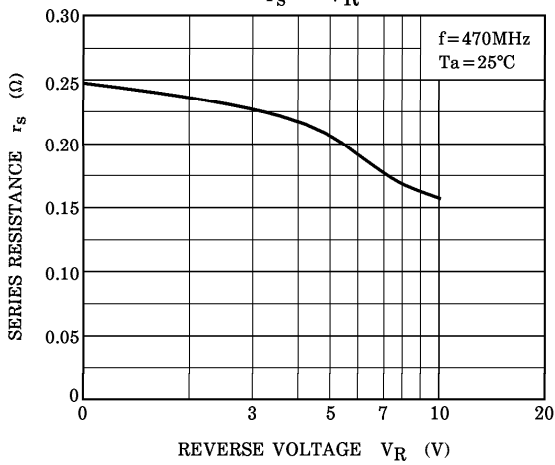
$C_V - V_R$



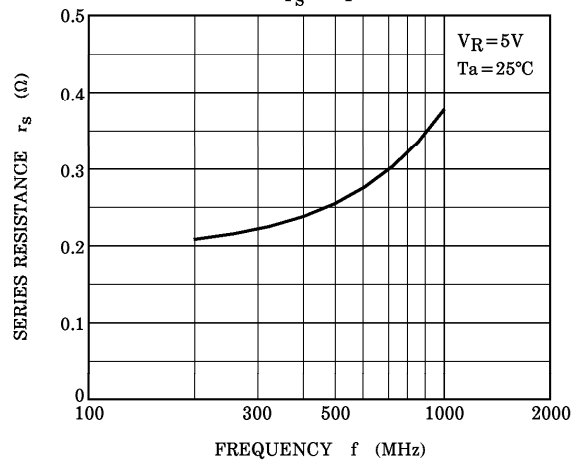
$I_R - V_R$



$r_s - V_R$



$r_s - f$



$\delta C - T_a$

