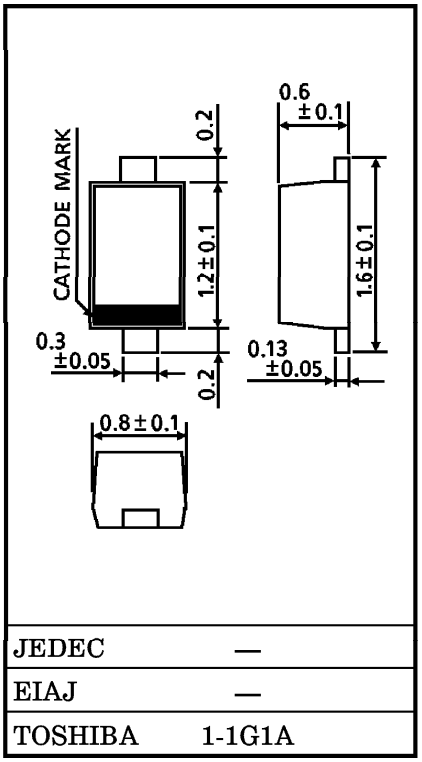
TOSHIBA VARIABLE CAPACITANCE DIODE SILICON EPITAXIAL PLANAR TYPE

1SV290

CATV TUNING

Unit in mm



JEDEC	—
EIAJ	—
TOSHIBA	1-1G1A

Weight : 0.0014g

- High Capacitance Ratio : $C_{2V}/C_{25V}=16$ (TYP.)
- Low Series Resistance : $r_s=0.92\Omega$ (TYP.)
- Excellent C-V Characteristics, and Small Tracking Error.
- Useful for Small Size Tuner.

MAXIMUM RATINGS (Ta = 25°C)

CHARACTERISTIC	SYMBOL	RATING	UNIT
Reverse Voltage	V_R	30	V
Peak Reverse Voltage	V_{RM}	35 ($R_L=10k\Omega$)	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	$I_R=1\mu A$	30	—	—	V
Reverse Current	I_R	$V_R=28V$	—	—	10	nA
Capacitance	C_{2V}	$V_R=2V$, f=1MHz	41	—	49.5	pF
Capacitance	C_{25V}	$V_R=25V$, f=1MHz	2.5	—	3.2	pF
Capacitance Ratio	C_{2V}/C_{25V}	—	15	16	—	—
Series Resistance	r_s	$V_R=5V$, f=470MHz	—	0.92	1.05	Ω

(Note 1) : Available in matched group for capacitance to 2.5%.

$$\frac{C(MAX.)-C(MIN.)}{C(MIN.)} \leqq 0.025$$

$(V_R=2\sim25V)$

MARKING

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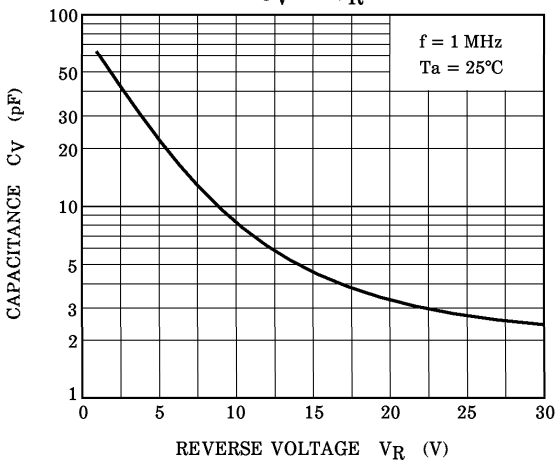
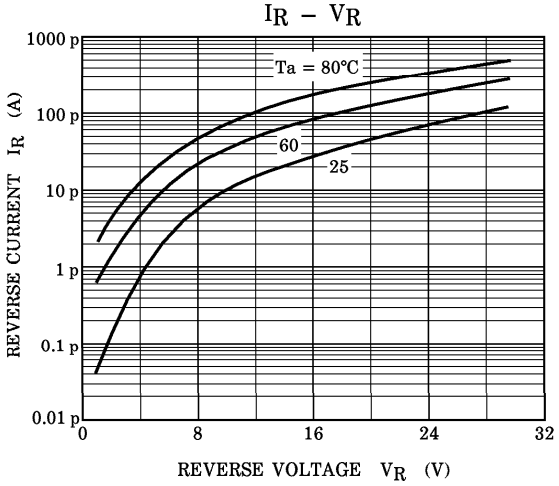
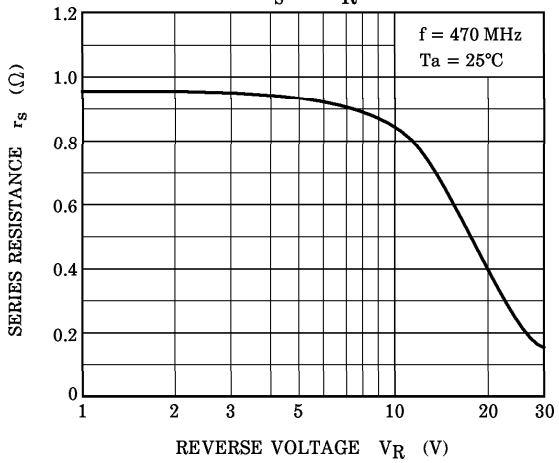
$C_V - V_R$



$I_R - V_R$



$r_S - V_R$



$\delta C - Ta$