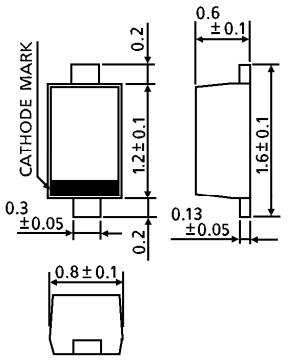
TOSHIBA DIODE SILICON EPITAXIAL PLANAR TYPE

1SV309

UHF SHF TUNING

Unit in mm

- High Capacitance Ratio : $C_{2V}/C_{25V}=5.7$ (Typ.)
- Low Series Resistance : $r_s=1.2\Omega$ (Typ.)
- Excellent C-V Characteristics, and Small Tracking Error
- Useful for Small Size Tuner

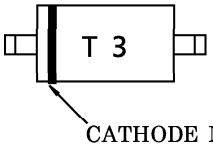


ESC	
JEDEC	—
EIAJ	—
TOSHIBA	1-1G1A

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

MARKING



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	C2V	$V_R=2V$, f=1MHz	3.31	—	4.55	pF
Capacitance	C_{25V}	$V_R=25V$, f=1MHz	0.61	—	0.77	pF
Capacitance Ratio	C_{2V}/C_{25V}	—	5.0	—	6.5	—
Series Resistance	r_s	$V_R=1V$, f=470MHz	—	1.2	2.0	Ω

(Note) Unites are compounded in one package and are matched to 6.0%.

$$\frac{C\,(Max.)-C\,(Min.)}{C\,(Min.)} \leqq 0.06$$

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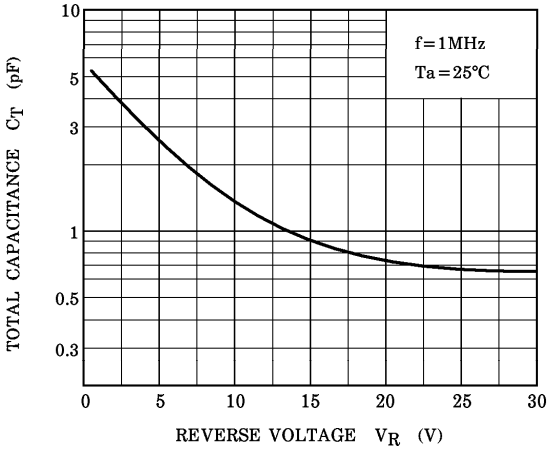
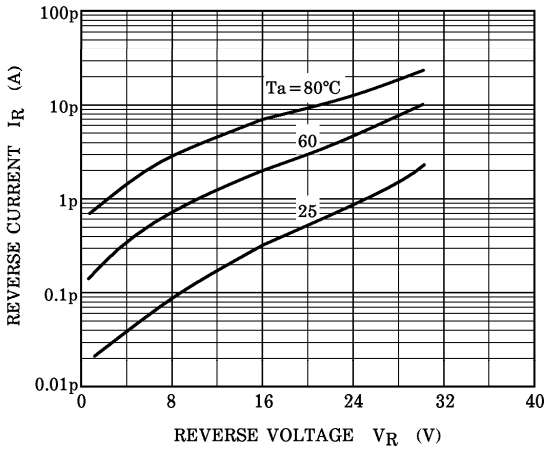
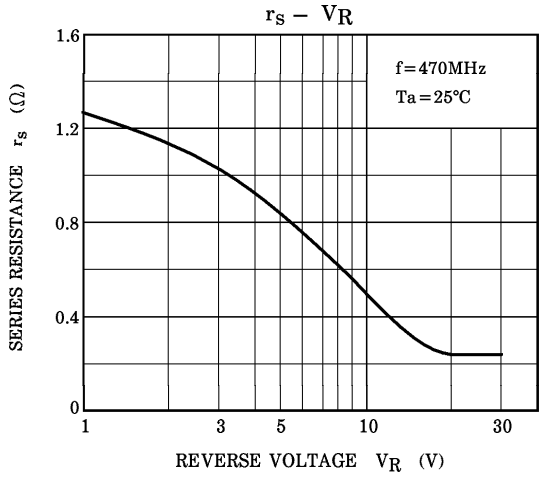
$C_V - V_R$



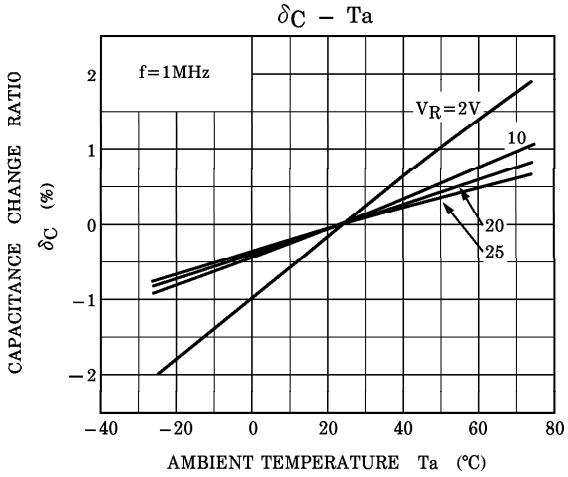
$I_R - V_R$



$r_s - V_R$



$\delta C - Ta$



NOTE : $\delta_C\,(\%) = \dfrac{C\,(Ta = T°C) - C\,(Ta = 25°C)}{C\,(Ta = 25°C)} \times 100$