

TENTATIVE    TOSHIBA VARIABLE CAPACITANCE DIODE    SILICON EPITAXIAL PLANAR TYPE

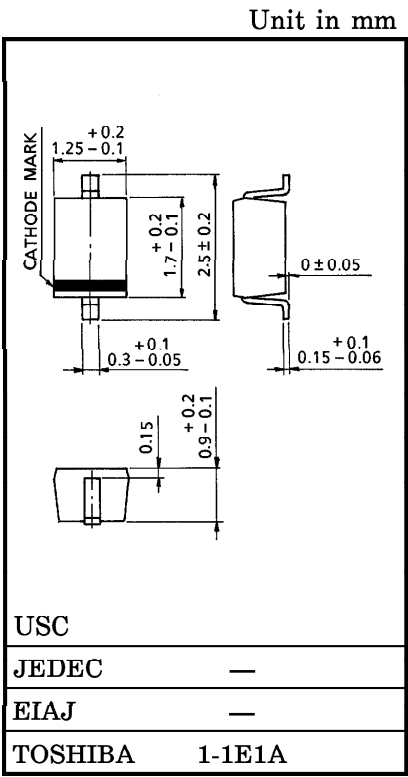
1SV302

CATV TUNING

- High Capacitance Ratio    :  $C_{2V}/C_{25V}=17.5$  (Typ.)
- Low Series Resistance    :  $r_s=1.05\Omega$  (Typ.)
- Useful for Small Size Tuner.

MAXIMUM RATINGS (Ta = 25°C)

CHARACTERISTIC	SYMBOL	RATIN	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	$I_R$	$V_R=32V$	—	—	10	nA
Capacitance	$C_{2V}$	$V_R=2V, f=1MHz$	42	47	51	pF
Capacitance	$C_{25V}$	$V_R=25V, f=1MHz$	2.1	2.6	3.1	pF
Capacitance Ratio	$C_{2V}/C_{25V}$	—	17	—	—	—
Series Resistance	$r_s$	$V_R=5V, f=470MHz$	—	1.05	1.25	$\Omega$

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

$$\frac{C(\text{Max.}) - C(\text{Min.})}{C(\text{Min.})} \leq 0.025$$

( $V_R=2\sim 25V$ )

MARKING



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