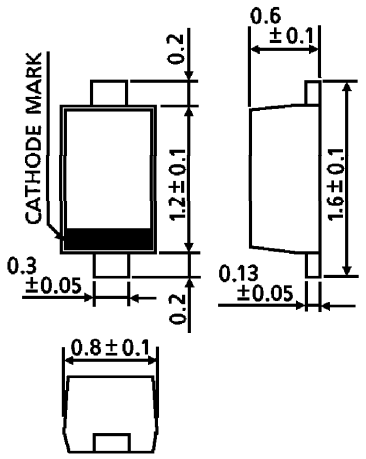
TOSHIBA VARIABLE CAPACITANCE DIODE SILICON EPITAXIAL PLANAR TYPE

# 1SV286

CATV CONVERTER 1'st OSC TUNING

Unit in mm

- High Capacitance Ratio : $C_{2V}/C_{20V}=8.9$ (TYP.)
- Low Series Resistance : $r_s=0.73\Omega$ (TYP.)
- Useful for Small Size Tuner.




| | |
|---|---|
| JEDEC | — |
| EIAJ | — |
| TOSHIBA | 1-1G1A |

Weight : 0.0014g

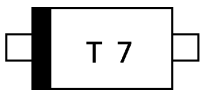
MAXIMUM RATINGS (Ta = 25°C)

| 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 | 14.5 | — | 16.1 | pF |
| Capacitance | $C_{20V}$ | $V_R=20V$, f=1MHz | 1.56 | — | 1.86 | pF |
| Capacitance Ratio | $C_{2V}/C_{20V}$ | — | 7.8 | 8.9 | — | — |
| Series Resistance | $r_s$ | $V_R=5V$, f=470MHz | — | 0.73 | 0.9 | Ω |

MARKING

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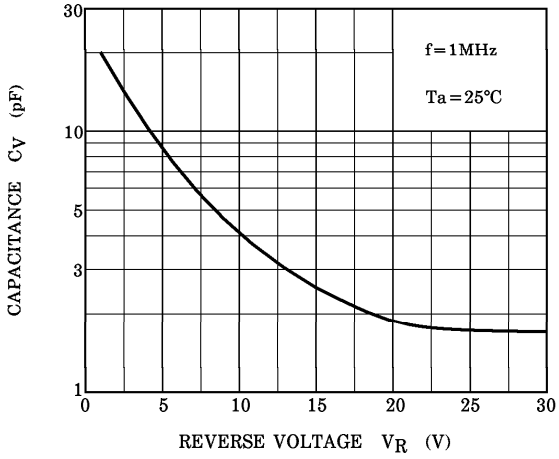
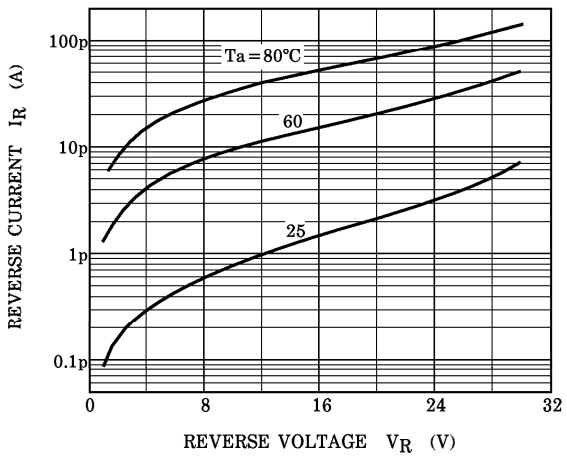
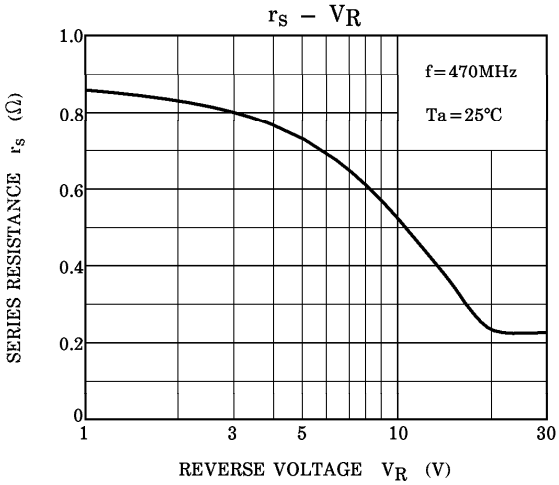
$C_V - V_R$



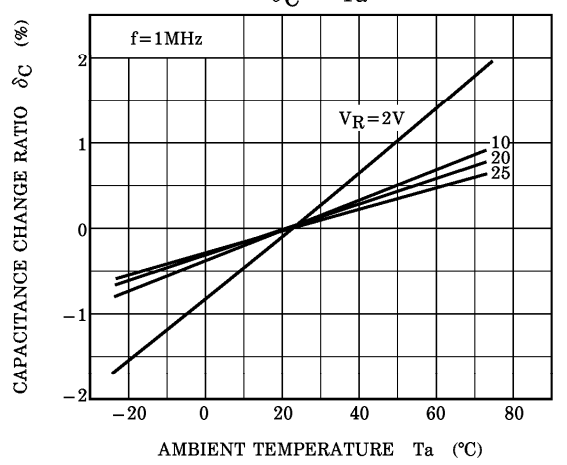

$I_R - V_R$




$r_S - V_R$




$\delta C - Ta$




NOTE : $\delta C = \dfrac{C(Ta) - C(25)}{C(25)} \times 100$