

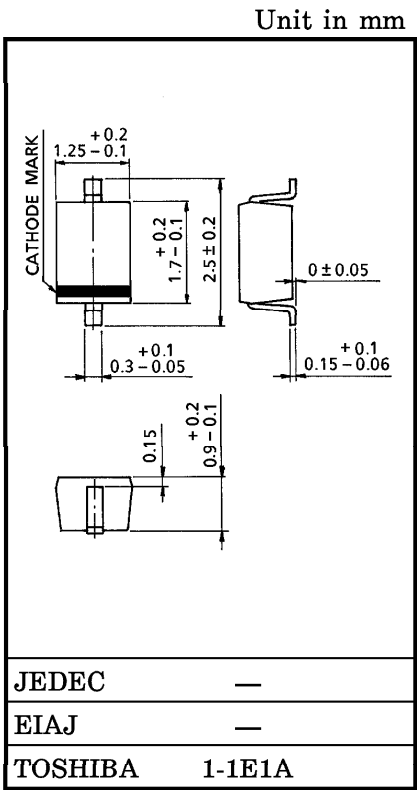
1SV262

CATV TUNING

- High Capacitance Ratio : C2V / C25V = 12.5 (Typ.)
- Low Series Resistance : rs = 0.6Ω (Typ.)
- Excellent C-V Characteristics, and Small Tracking Error.
- Small Package

MAXIMUM RATINGS (Ta = 25°C)

CHARACTERISTIC	SYMBOL	RATING	UNIT
Reverse Voltage	VR	34	V
Peak Reverse Voltage	VRM	36 (RL = 10kΩ)	V
Junction Temperature	Tj	125	°C
Storage Temperature Range	Tstg	-55~125	°C



Weight : 0.004g

ELECTRICAL CHARACTERISTICS (Ta = 25°C)

CHARACTERISTIC	SYMBOL	TEST CONDITION	MIN.	TYP.	MAX.	UNIT
Reverse Voltage	VR	IR = 1μA	34	—	—	V
Reverse Current	IR	VR = 32V	—	—	10	nA
Capacitance	C2V	VR = 2V, f = 1MHz	33	35.5	38	pF
Capacitance	C25V	VR = 25V, f = 1MHz	2.6	2.85	3.0	pF
Capacitance Ratio	C2V / C25V	—	12.0	12.5	—	—
Capacitance Ratio	C25V / C28V	—	1.03	—	—	—
Series Resistance	rs	VR = 5V, f = 470MHz	—	0.6	0.8	Ω

(Note 1) : Available in matched group for capacitance to 2.0%.

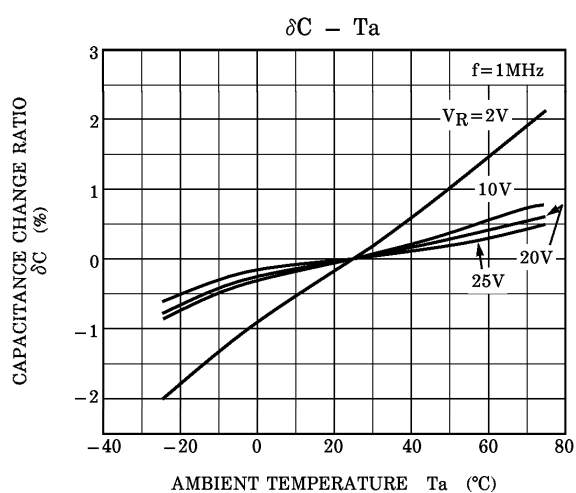
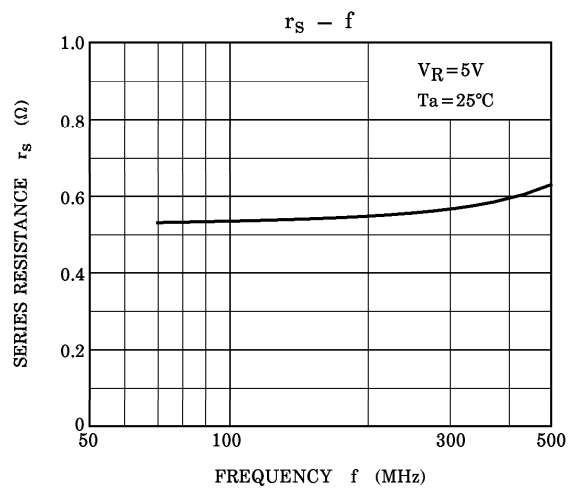
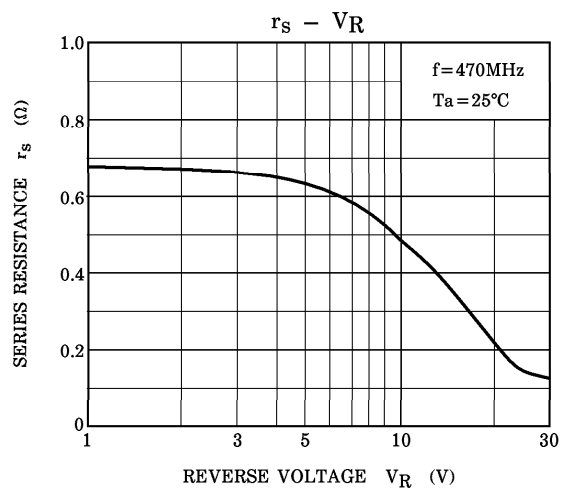
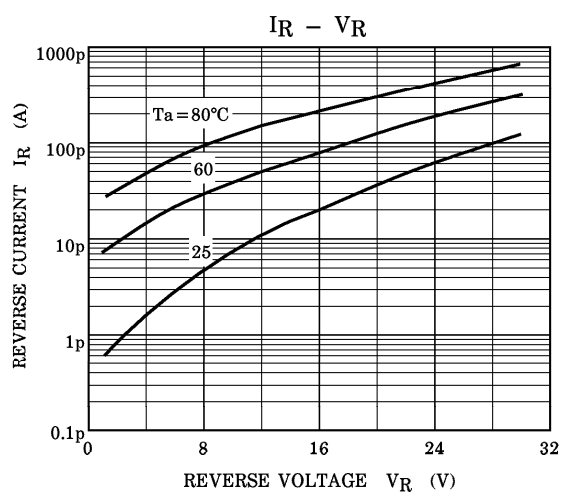
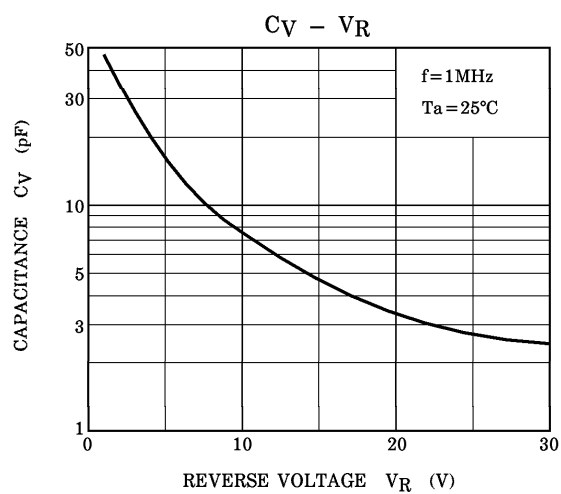
MARKING

$$\frac{C(\text{Max.}) - C(\text{Min.})}{C(\text{Min.})} \leq 0.02 \quad (V_R = 2 \sim 25V)$$



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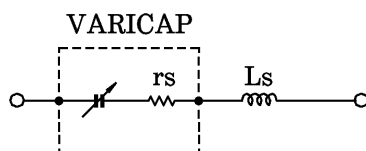
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## SPICE PARAMETER

SPICE MODEL : BERKLEY SPICE.2G.6 DIODE MODEL  
 DATA FORMAT : MODEL FORMAT  
 SPICE SYMBOL :  $I_S$  (A),  $R_S$  ( $\Omega$ ),  $N$  (-),  $CJ0$  (F),  $V_J$  (V),  $M$  (-),  $B_V$  (V),  $I_{BV}$  (A)  
 FREQUENCY RANGE :  $f = 0.1 \sim 3$  GHz  
 REVERSE VOLTAGE RANGE :  $V_R = 2 \sim 25$  V  
 AMBIENT TEMPERATURE :  $T_a = 27^\circ\text{C}$

## PARAMETER

$I_S = 6.356\text{E} - 15$   
 $N = 1.058$   
 $B_V = 34$   
 $I_{BV} = 1.00\text{E} - 04$   
 $R_S = 0.6$   
 $CJ0 = 8.577\text{E} - 11$   
 $V_J = 2.208$   
 $M = 1.396$   
 -----  
 $L_s = 1.00\text{E} - 09$



- (Note 1) : These parameters from  $I_S$  to  $M$  mean die characteristic.  
 Actually device has lead inductance so  $L_s$  is necessary for simulation.  
 And please use default value except above parameters.
- (Note 2) :  $R_S$  shows the value at the condition of  $V_R = 5$  V and  $f = 470$  MHz.  
 If another value is needed, please refer to  $R_S - V_R$  curve in this data sheets.