



Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from,Europe,America and south Asia,supplying obsolete and hard-to-find components to meet their specific needs.

With the principle of "Quality Parts,Customers Priority,Honest Operation,and Considerate Service",our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip,ALPS,ROHM,Xilinx,Pulse,ON,Everlight and Freescale. Main products comprise IC,Modules,Potentiometer,IC Socket,Relay,Connector.Our parts cover such applications as commercial,industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!



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1SV282

CATV Tuning

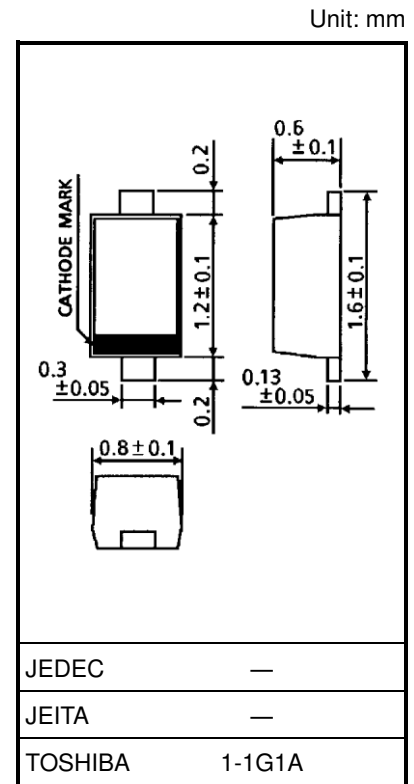
- High capacitance ratio: $C_{2V}/C_{25V} = 12.5$ (typ.)
- Low series resistance: $r_s = 0.6 \Omega$ (typ.)
- Excellent C-V characteristics, and small tracking error.
- Useful for small size tuner.

Absolute Maximum Ratings (Ta = 25°C)

Characteristics	Symbol	Rating	Unit
Reverse voltage	V_R	34	V
Peak reverse voltage	V_{RM}	36 ($R_L = 10 \text{ k}\Omega$)	V
Junction temperature	T_j	125	°C
Storage temperature range	T_{stg}	-55 to 125	°C

Note: Using continuously under heavy loads (e.g. the application of high temperature/current/voltage and the significant change in temperature, etc.) may cause this product to decrease in the reliability significantly even if the operating conditions (i.e. operating temperature/current/voltage, etc.) are within the absolute maximum ratings.

Please design the appropriate reliability upon reviewing the Toshiba Semiconductor Reliability Handbook ("Handling Precautions"/"Derating Concept and Methods") and individual reliability data (i.e. reliability test report and estimated failure rate, etc).



Weight: 0.0014 g (typ.)

Electrical Characteristics (Ta = 25°C)

Characteristics	Symbol	Test Condition	Min	Typ.	Max	Unit
Reverse voltage	V_R	$I_R = 1 \mu\text{A}$	34	—	—	V
Reverse current	I_R	$V_R = 32 \text{ V}$	—	—	10	nA
Capacitance(Note 1)	C_{2V}	$V_R = 2 \text{ V}, f = 1 \text{ MHz}$	33	35.5	38	pF
Capacitance(Note 1)	C_{25V}	$V_R = 25 \text{ V}, f = 1 \text{ MHz}$	2.6	2.85	3.0	
Capacitance ratio	C_{2V}/C_{25V}	—	12.0	12.5	—	—
Capacitance ratio	C_{25V}/C_{28V}	—	1.03	—	—	—
Series resistance	r_s	$V_R = 5 \text{ V}, f = 470 \text{ MHz}$	—	0.6	0.8	Ω

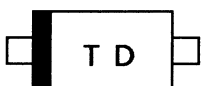
Note 1: Available in matched group for capacitance to 2%.

For devices with the ordering number 1SV282(TPH2,F).

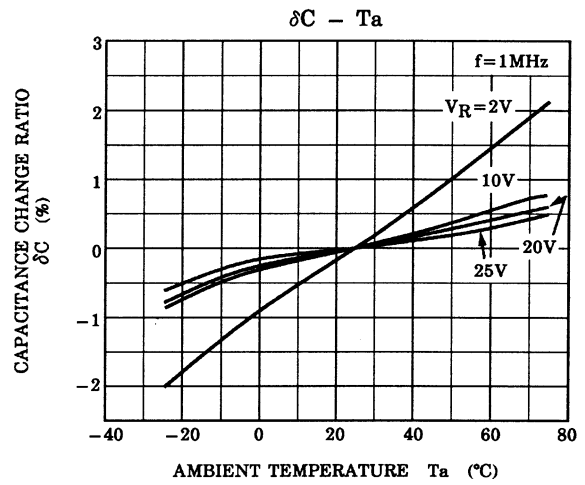
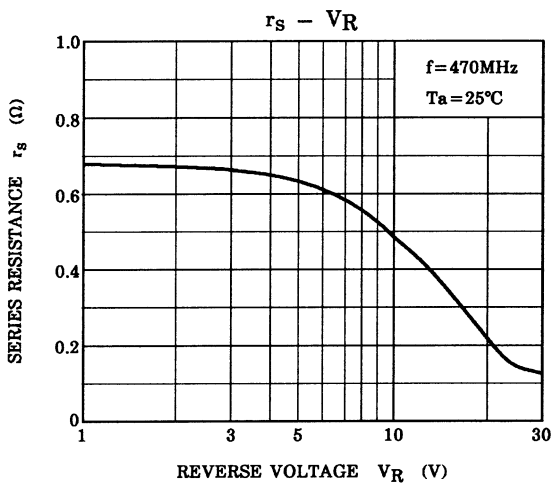
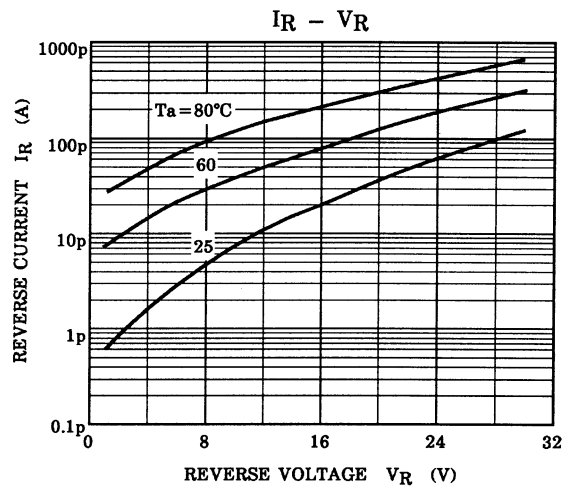
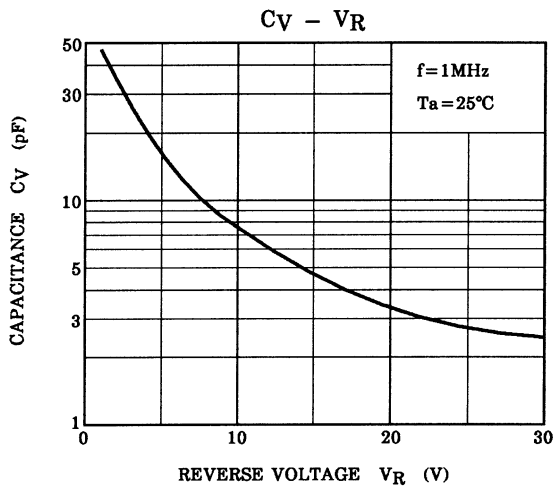
$$\frac{C(\text{max}) - C(\text{min})}{C(\text{min})} \leq 0.02$$

($V_R = 2$ to 25 V)

Marking



Start of commercial production
1998-08



Note: $\delta_C = \frac{C(T_a) - C(25)}{C(25)} \times 100$ (%)

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