

TOSHIBA Diode Silicon Epitaxial Planar Type

1SS381

VHF Tuner Band Switch Applications

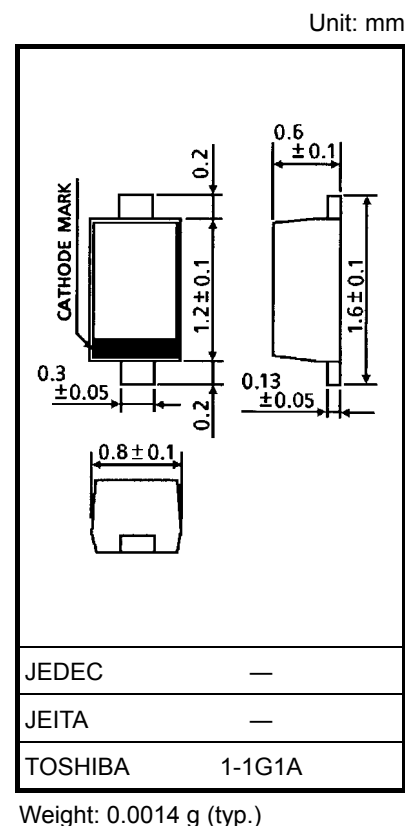
- Small package
- Small total capacitance: $C_T = 1.2 \text{ pF (max)}$
- Low series resistance: $r_s = 0.6 \Omega \text{ (typ.)}$

Absolute Maximum Ratings ($T_a = 25^\circ\text{C}$)

Characteristics	Symbol	Rating	Unit
Reverse voltage	V_R	30	V
Forward current	I_F	100	mA
Junction temperature	T_j	125	$^\circ\text{C}$
Storage temperature range	T_{stg}	$-55 \sim 125$	$^\circ\text{C}$

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.

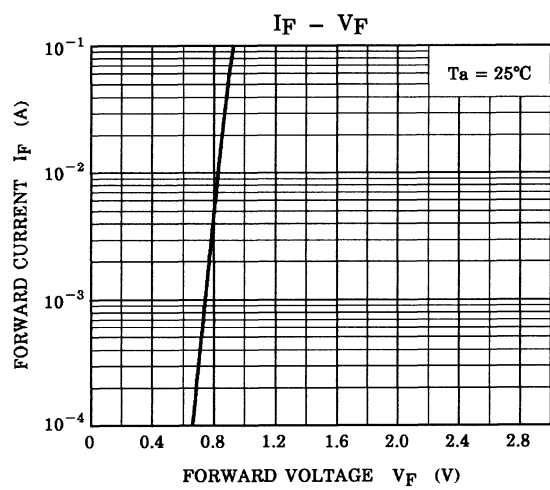
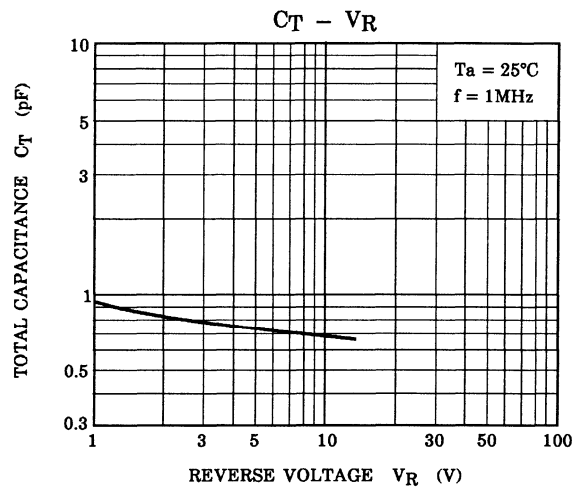
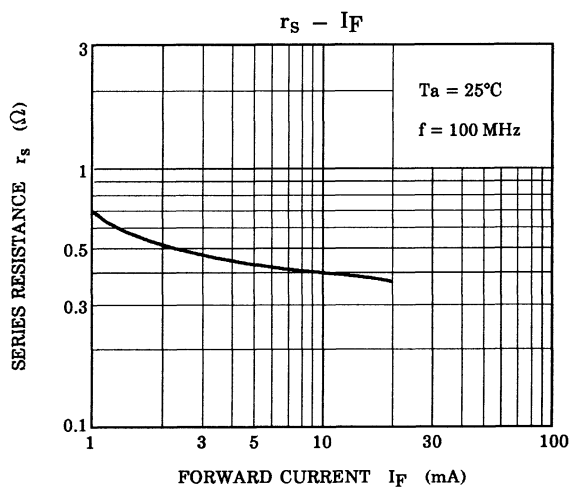
Please design the appropriate reliability upon reviewing the Toshiba Semiconductor Reliability Handbook ("Handling Precautions"/"Derating Concept and Methods") and individual reliability data (i.e. reliability test report and estimated failure rate, etc).

Electrical Characteristics ($T_a = 25^\circ\text{C}$)

Characteristics	Symbol	Test Condition	Min	Typ.	Max	Unit
Forward voltage	V_F	$I_F = 2 \text{ mA}$	—	—	0.85	V
Reverse current	I_R	$V_R = 15 \text{ V}$	—	—	0.1	μA
Reverse voltage	V_R	$I_R = 1 \mu\text{A}$	30	—	—	V
Total capacitance	C_T	$V_R = 6 \text{ V}, f = 1 \text{ MHz}$	—	0.7	1.2	pF
Series resistance	r_s	$I_F = 2 \text{ mA}, f = 100 \text{ MHz}$	—	0.6	0.9	Ω

Marking





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