

Small Signal Product

350mW High Speed SMD Switching Diode

FEATURES

- Designed for mounting on small surface
- Extremely thin / leadless package
- High mounting capability, strong surge with stand, high reliability
- Pb free version and RoHS compliant
- Packing code with suffix "G" means green compound (halogen-free)



1005



MECHANICAL DATA

- Case: 1005
- Terminal: Gold plated, solderable per MIL-STD-750, method 2026
- Polarity: Indicated by cathode band
- Weight: 6 mg (approximately)
- Marking code: S5

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS (T _A =25°C unless otherwise noted)			
PARAMETER	SYMBOL	VALUE	UNIT
Power Dissipation	P _D	200	mW
Repetitive Peak Reverse Voltage	V _{RRM}	100	V
Mean Forward Current	I _O	125	mA
Non-Repetitive Peak Forward Surge Current	I _{FSM}	2 1	A
Pulse Width = 1 μs Pulse Width = 8.3 ms			
Thermal Resistance (Junction to Ambient)	R _{θJA}	500	°C/W
Junction and Storage Temperature Range	T _J , T _{STG}	-40 to +125	°C

PARAMETER	SYMBOL	MIN	MAX	UNIT
Reverse Breakdown Voltage	V _(BR)	-	80	V
Forward Voltage	V _F	0.62	0.72 1.00	V
I _F =5mA I _F =100mA				
Reverse Leakage Current	I _R	-	25 100	nA
V _R =20V V _R =80V				
Junction Capacitance	C _J	-	9	pF
V _R =0V, f=1.0MHz				
Reverse Recovery Time	t _{rr}	-	9	ns
(Note 3)				

Note 1: Valid provided that electrodes are kept at ambient temperature

Note 2: Test condition : I_R=100μA

Note 3: Test condition : I_F=I_R=10mA, R_L=100Ω, I_{RR}=1mA

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RATINGS AND CHARACTERISTICS CURVES

($T_A=25^{\circ}\text{C}$ unless otherwise noted)

Fig. 1 Typical Forward Characteristics

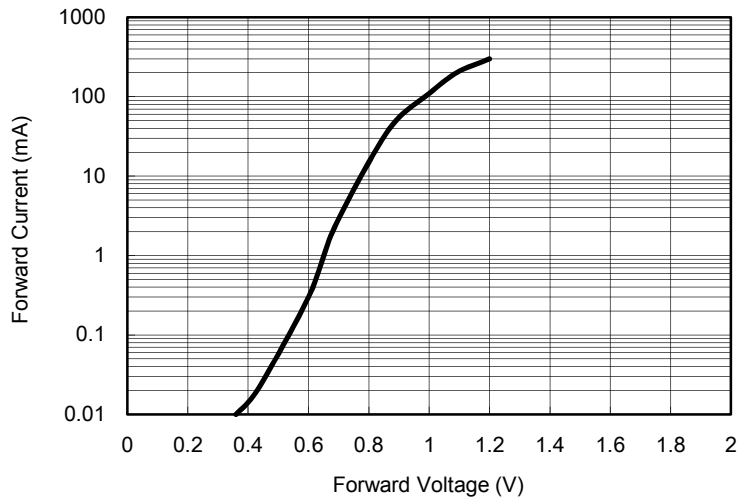


Fig. 2 Reverse Current VS. Reverse Voltage

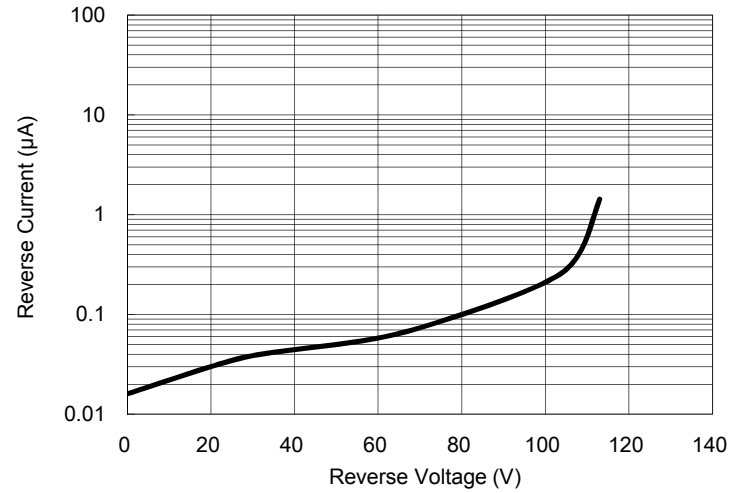


Fig. 3 Admissible Power Dissipation Curve

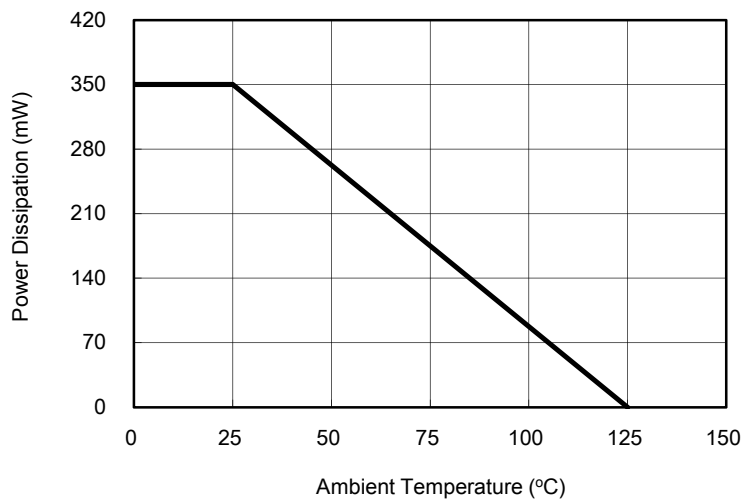


Fig. 4 Typical Junction Capacitance

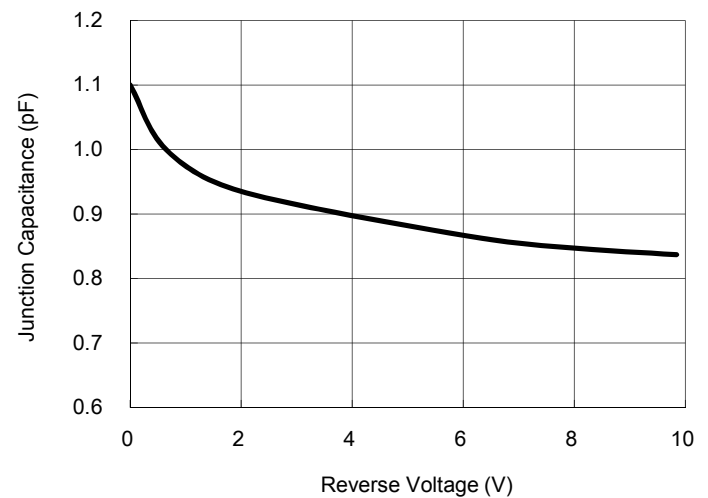
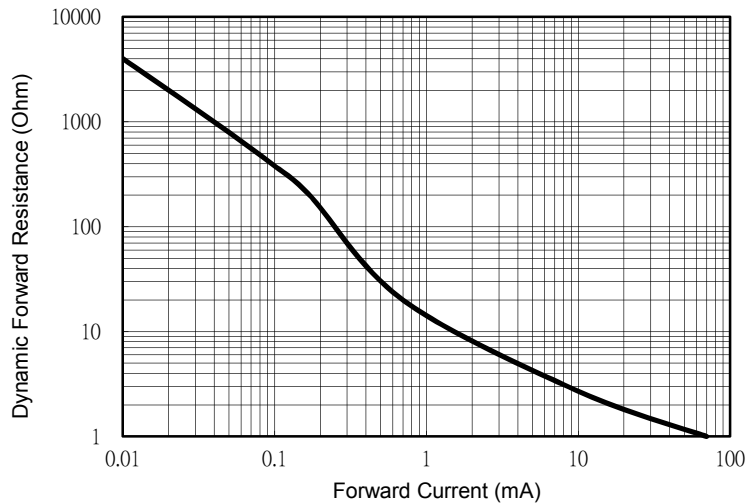
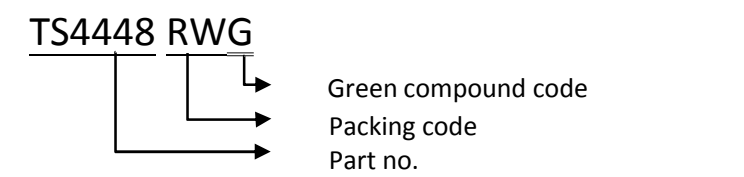


Fig. 5 Forward Resistance VS. Forward Current

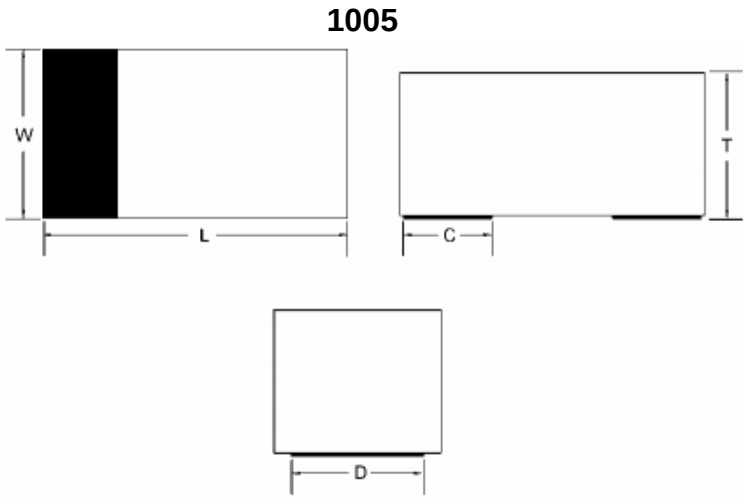


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ORDER INFORMATION (EXAMPLE)



PACKAGE OUTLINE DIMENSION



DIM.	Unit (mm)			Unit (inch)		
	Min	Typ	Max	Min	Typ	Max
L	2.4	-	2.6	0.094	-	0.102
W	1.1	-	1.3	0.043	-	0.051
T	0.7	-	0.9	0.028	-	0.035
C	-	0.5	-	-	0.020	-
D	-	1.0	-	-	0.039	-

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