Small Signal Product

350mW High Speed SMD Switching Diode

FEATURES

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

1005

Pb-Free

RoHS COMPLIANT

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	Pulse Width = 1 μs Pulse Width = 8.3 ms	I_{FSM}	2 1	A
Thermal Resistance (Junction to Ambient)	(Note 1)	$R_{\theta JA}$	500	°C/W
Junction and Storage Temperature Range		T_J , T_{STG}	-40 to +125	°C

PARAMETER		SYMBOL	MIN	MAX	UNIT
Reverse Breakdown Voltage	(Note 2)	$V_{(BR)}$	-	80	V
Forward Voltage	I_F=5mA	V_F	0.62	0.72	V
	I_F=100mA			1.00	
Reverse Leakage Current	V_R=20V	I_R	-	25	nA
	V_R=80V		-	100	
Junction Capacitance	V_R=0V, f=1.0MHz	C_J	-	9	pF
Reverse Recovery Time	(Note 3)	t_{rr}	-	9	ns

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

RATINGS AND CHARACTERISTICS CURVES

(T_A=25°C unless otherwise noted)

Fig. 1 Typical Forward Characteristics

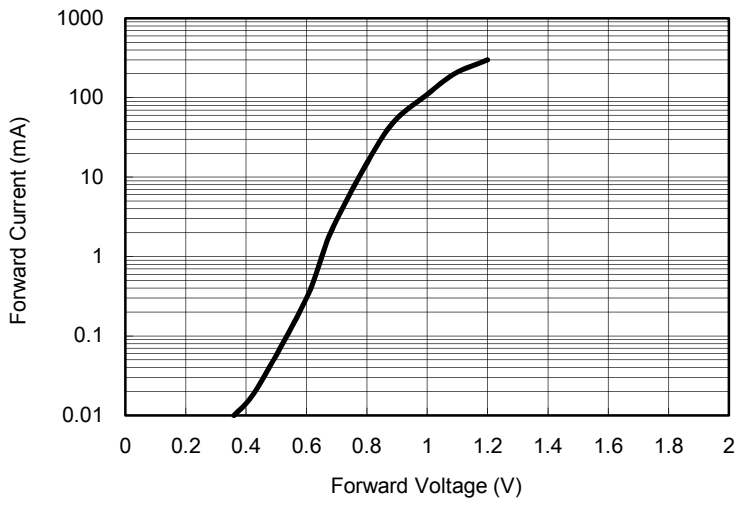


Fig. 2 Reverse Current VS. Reverse Voltage

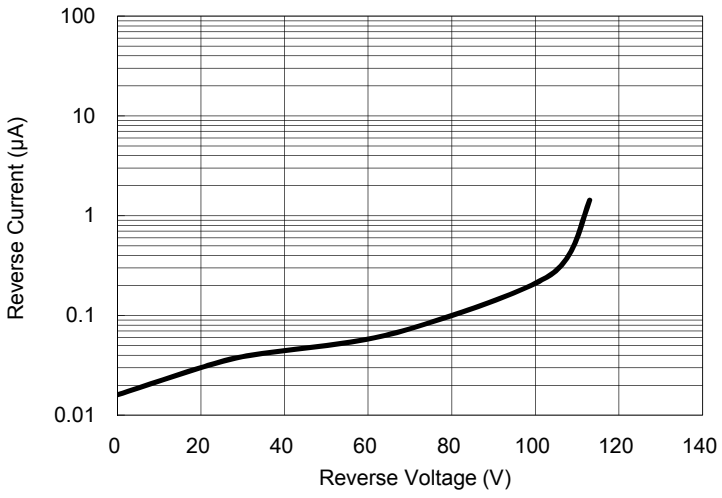


Fig. 3 Admissible Power Dissipation Curve

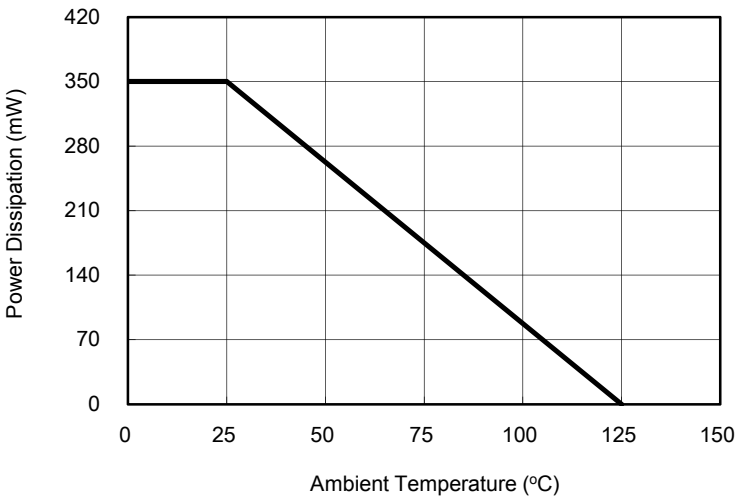


Fig. 4 Typical Junction Capacitance

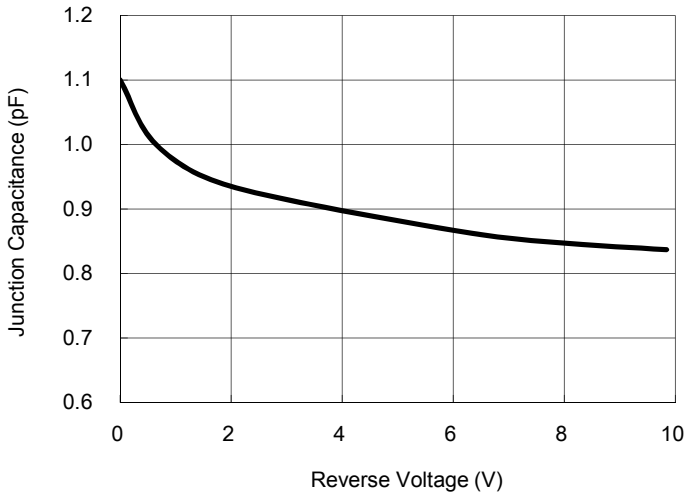
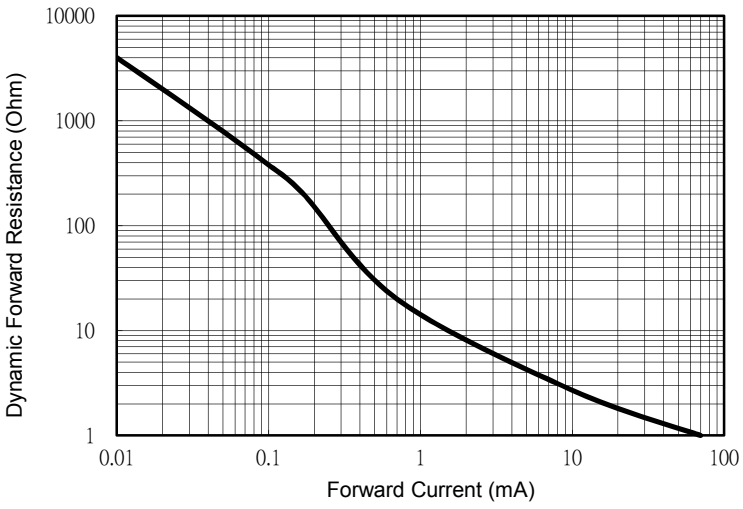


Fig. 5 Forward Resistance VS. Forward Current



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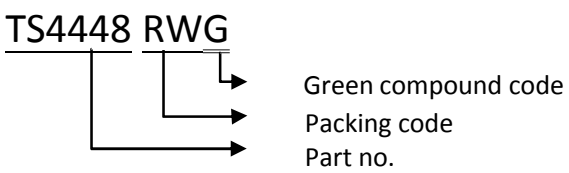
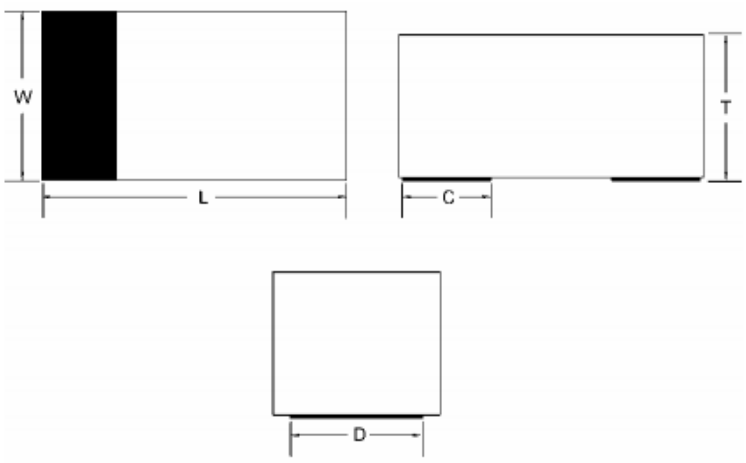
ORDER INFORMATION (EXAMPLE)



PACKAGE OUTLINE DIMENSION

1005



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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