

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 <sub>A</sub> =25°C unless otherwise noted)			
PARAMETER	SYMBOL	VALUE	UNIT
Power Dissipation	P <sub>D</sub>	200	mW
Repetitive Peak Reverse Voltage	V <sub>RRM</sub>	100	V
Mean Forward Current	I <sub>O</sub>	125	mA
Non-Repetitive Peak Forward Surge Current	I <sub>FSM</sub>	Pulse Width = 1 μs	2
		Pulse Width = 8.3 ms	1
Thermal Resistance (Junction to Ambient)	R <sub>θJA</sub>	500	°C/W
Junction and Storage Temperature Range	T <sub>J</sub> , T <sub>STG</sub>	-40 to +125	°C

PARAMETER	SYMBOL	MIN	MAX	UNIT
Reverse Breakdown Voltage (Note 2)	V <sub>(BR)</sub>	-	80	V
Forward Voltage	V <sub>F</sub>	0.62	I <sub>F</sub> =5mA	0.72
			I <sub>F</sub> =100mA	1.00
Reverse Leakage Current	I <sub>R</sub>	-	V <sub>R</sub> =20V	25
			V <sub>R</sub> =80V	100
Junction Capacitance	C <sub>J</sub>	-	9	pF
Reverse Recovery Time (Note 3)	t <sub>rr</sub>	-	9	ns

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

Note 2: Test condition : I<sub>R</sub>=100μA

Note 3: Test condition : I<sub>F</sub>=I<sub>R</sub>=10mA, R<sub>L</sub>=100Ω, I<sub>RR</sub>=1mA

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RATINGS AND CHARACTERISTICS CURVES

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

Fig. 1 Typical Forward Characteristics

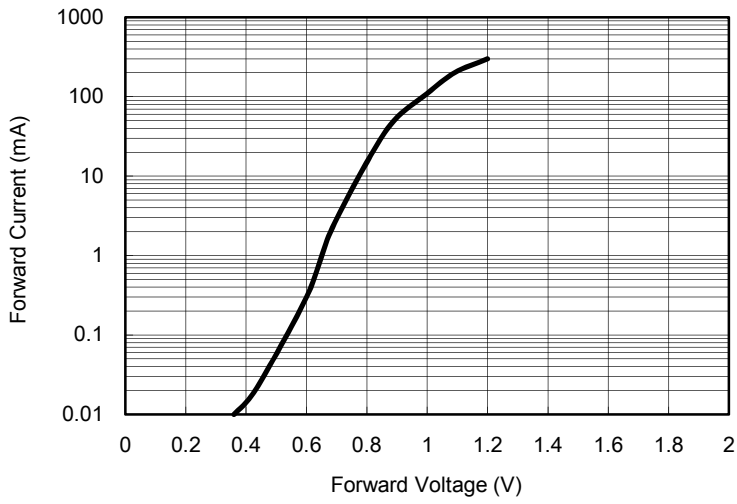


Fig. 2 Reverse Current VS. Reverse Voltage

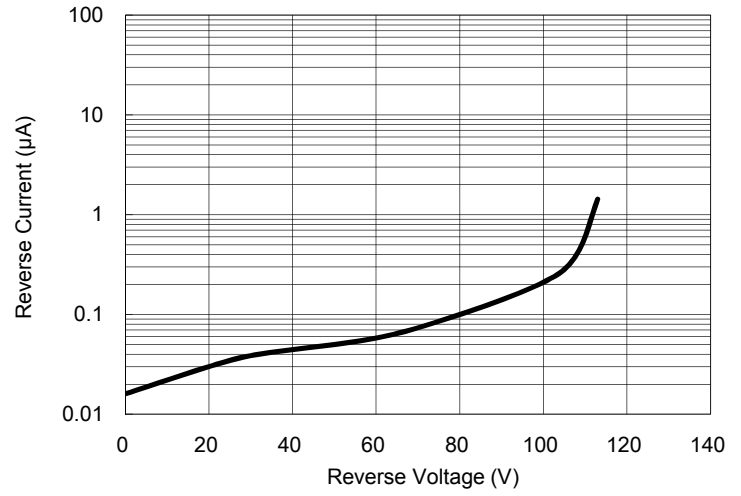


Fig. 3 Admissible Power Dissipation Curve

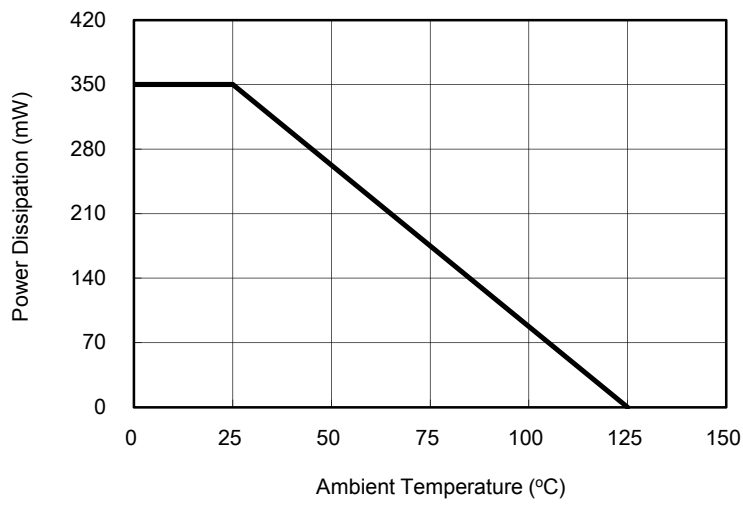


Fig. 4 Typical Junction Capacitance

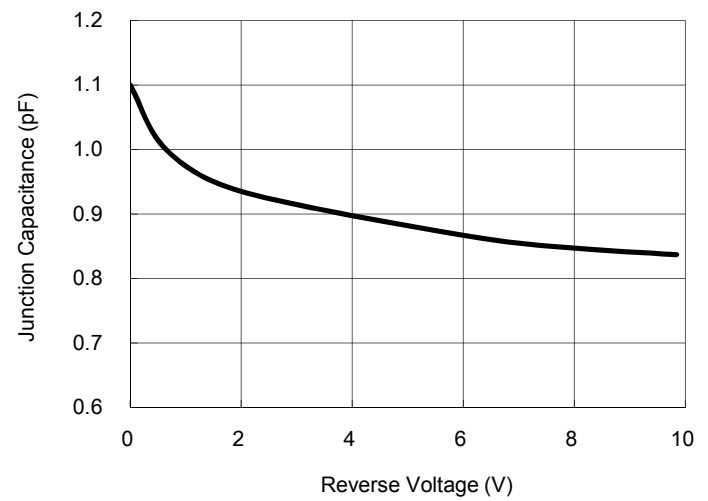
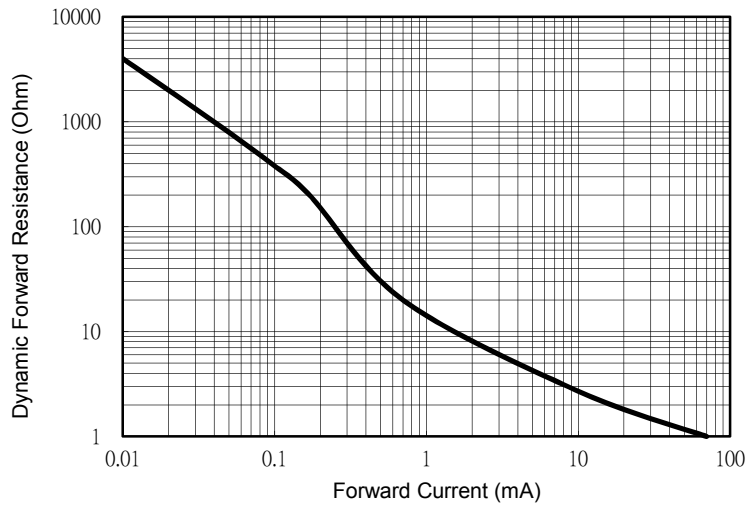


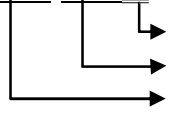
Fig. 5 Forward Resistance VS. Forward Current



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ORDER INFORMATION (EXAMPLE)

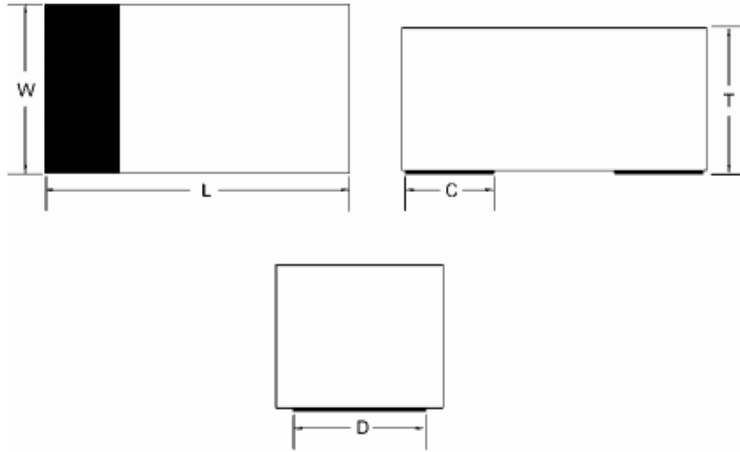
**TS4448 RWG**



Green compound code  
Packing code  
Part no.

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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