

Small Signal Product

## 350 mW 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
- 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)

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS (T <sub>A</sub> =25°C unless otherwise noted)			
PARAMETER	SYMBOL	VALUE	UNIT
Power Dissipation	P <sub>D</sub>	350	mW
Non-Repetitive Peak Reverse Voltage	V <sub>RSM</sub>	100	V
Repetitive Peak Reverse Voltage	V <sub>RRM</sub>	75	V
Repetitive Peak Forward Current	I <sub>FRM</sub>	300	mA
Mean Forward Current	I <sub>O</sub>	150	mA
Non-Repetitive Peak Forward Surge Current	I <sub>FSM</sub>	Pulse Width=1μs	4.0
		Pulse Width=1ms	1.0
Thermal Resistance (Note 1)	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>	-	75	V
Forward Voltage I <sub>F</sub> =50mA	V <sub>F</sub>	-	1.0	V
Reverse Leakage Current V <sub>R</sub> =20V	I <sub>R</sub>	-	25	nA
		V <sub>R</sub> =75V	-	2.5
Junction Capacitance V <sub>R</sub> =0, f=1.0MHz	C <sub>J</sub>		4.0	pF
Reverse Recovery Time (Note 3)	t <sub>rr</sub>		4	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>=30mA, R<sub>L</sub>=100Ω, I<sub>RR</sub>=3mA

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RATINGS AND CHARACTERISTICS CURVES

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

Fig. 1 Typical Forward Characteristics

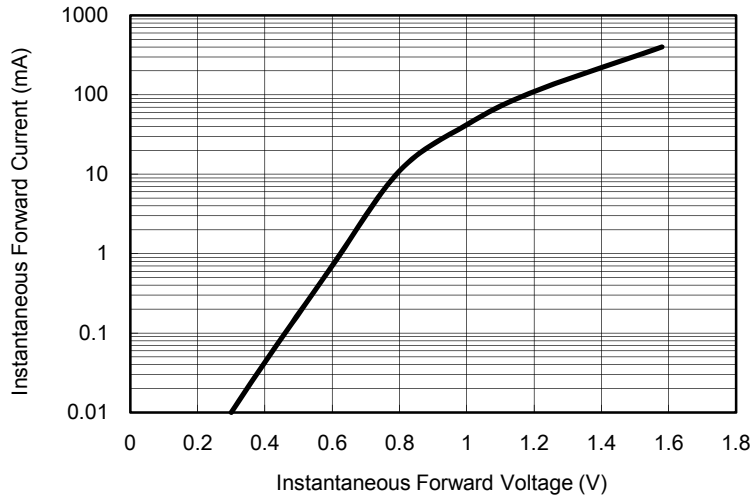


Fig. 2 Reverse Current VS. Reverse Voltage

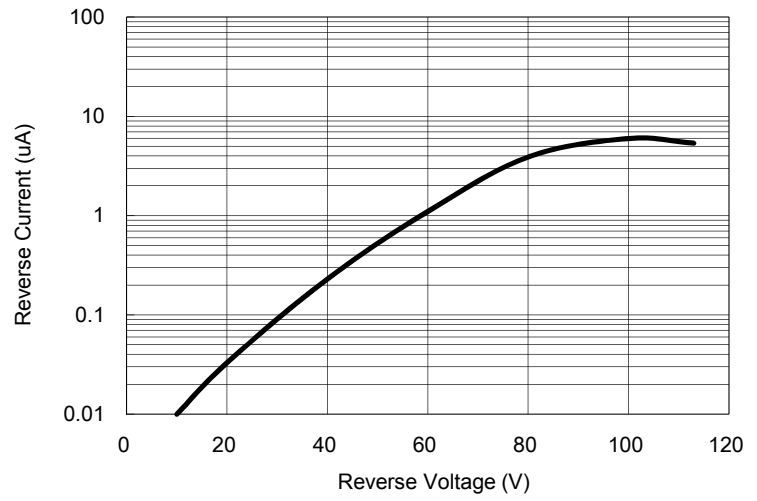


Fig. 3 Admissible Power Dissipation Curve

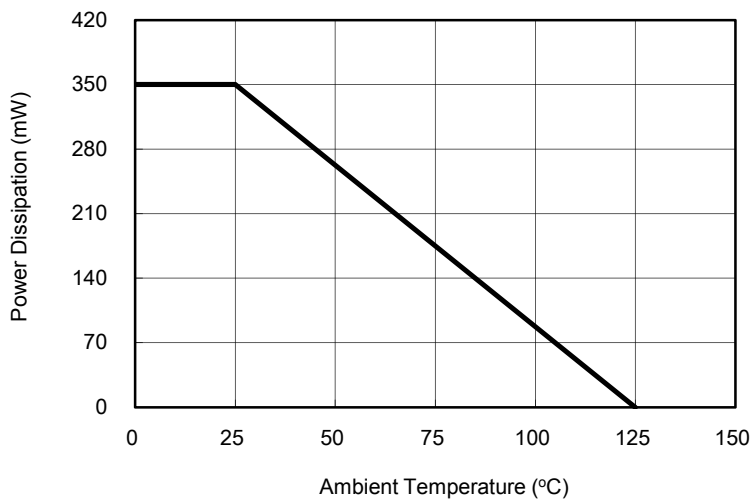


Fig. 4 Typical Junction Capacitance

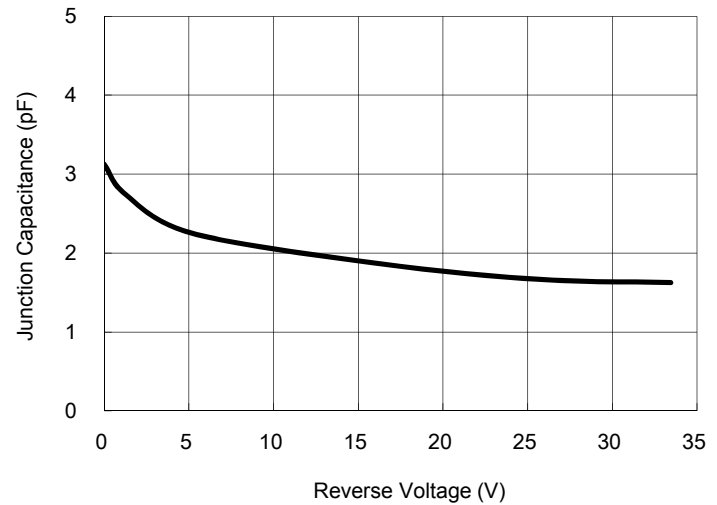
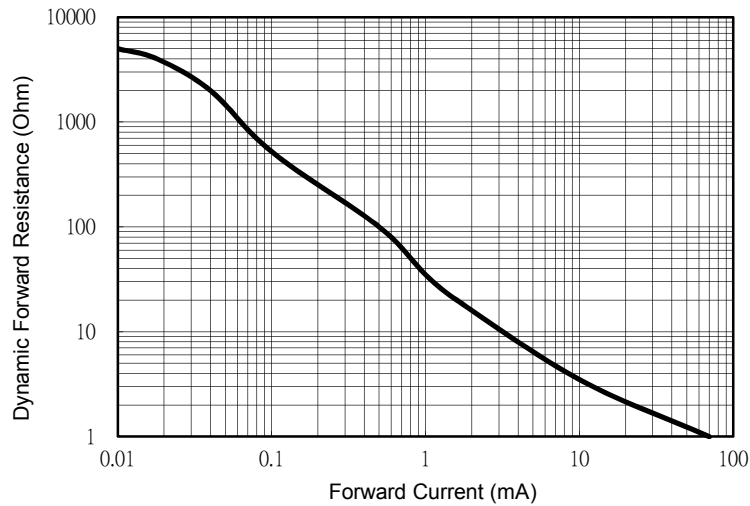


Fig. 5 Forward Resistance VS. Forward Current



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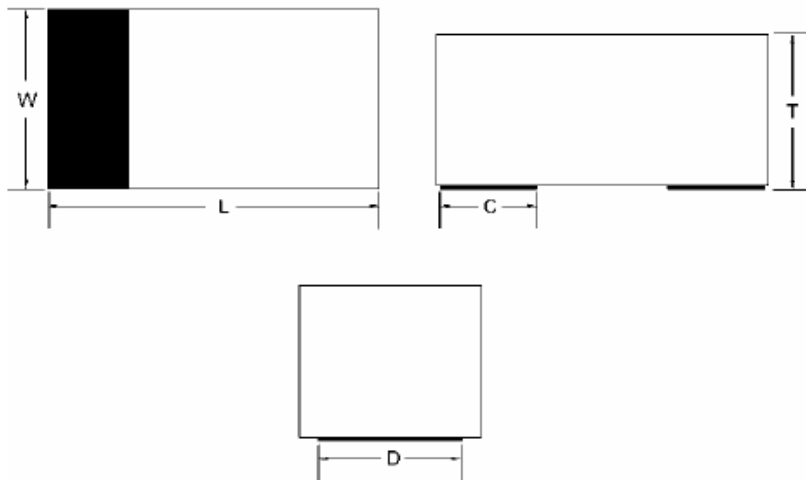
ORDERING INFORMATION					
PART NO.	PART NO. SUFFIX	PACKING CODE	PACKING CODE SUFFIX	PACKAGE	PACKING
TS4148	-xx (Note 1)	RW	G	1005	4K / 7" Reel

Note 1: Part No. Suffix „-xx “ would be used for special requirement

EXAMPLE					
PREFERRED PART NO.	PART NO.	PART NO. SUFFIX	PACKING CODE	PACKING CODE SUFFIX	DESCRIPTION
TS4148 RWG	TS4148		RW	G	Multiple manufacture source Green compound
TS4148-F0 RWG	TS4148	-F0	RW	G	Defined manufacture source Green compound

PACKAGE OUTLINE DIMENSION

**1005**



DIM.	Unit (mm)			Unit (inch)		
	Min	Typ	Max	Min	Typ	Max
L	2.40	-	2.60	0.094	-	0.102
W	1.10	-	1.30	0.043	-	0.051
T	0.70	-	0.90	0.028	-	0.035
C	-	0.50	-	-	0.020	-
D	-	1.00	-	-	0.039	-

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