

Small Signal Product

## 200mW 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



**0603 (Ceramics)**



**MECHANICAL DATA**

- Case: 0603 (Ceramics)
- High temperature soldering guaranteed: 260°C/10s
- Polarity: Indicated by white cathode band
- Weight: 4 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>	200	mW
Repetitive peak reverse voltage	V <sub>RRM</sub>	75	V
Repetitive peak forward current	I <sub>FRM</sub>	200	mA
Mean forward current	I <sub>O</sub>	100	mA
Non-repetitive peak forward surge current	I <sub>FSM</sub>	0.4	A
		0.8	
Thermal resistance (Junction to Ambient)	R <sub>θJA</sub>	375	°C/W
Junction and storage temperature range	T <sub>J</sub> , T <sub>STG</sub>	-55 to +150	°C

PARAMETER	SYMBOL	MIN	MAX	UNIT
Reverse breakdown voltage	I <sub>R</sub> =100μA V <sub>(BR)</sub>	-	75	V
Forward voltage	I <sub>F</sub> =10mA V <sub>F</sub>	-	1.00	V
	I <sub>F</sub> =100mA V <sub>F</sub>	-	1.25	
Reverse leakage current	V <sub>R</sub> =20V I <sub>R</sub>	-	0.025	μA
	V <sub>R</sub> =75V I <sub>R</sub>	-	5.0	
Junction capacitance	V <sub>R</sub> =0V, f=1.0MHz C <sub>J</sub>	-	4	pF
Reverse recovery time	I <sub>F</sub> =I <sub>R</sub> =10mA, R <sub>L</sub> =100Ω t <sub>rr</sub>	-	4	ns

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ORDERING INFORMATION					
PART NO.	PART NO. SUFFIX	PACKING CODE	PACKING CODE SUFFIX	PACKAGE	PACKING
TS4148C	-xx (Note 1)	RZ	G	0603 (Ceramics)	5K / 7" Reel
		RC			10K / 13" 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
TS4148C RZG	TS4148C		RZ	G	Multiple manufacture source Green compound
TS4148C-C0 RZG	TS4148C	-C0	RZ	G	Defined manufacture source Green compound

RATINGS AND CHARACTERISTICS CURVES

(T<sub>A</sub>=25°C unless otherwise noted)

Fig. 1 Typical Forward Characteristics

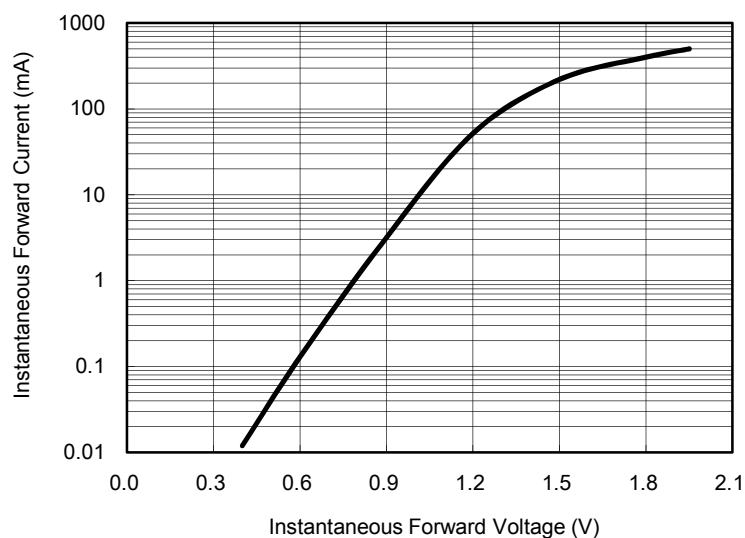


Fig. 2 Typical Reverse Characteristics

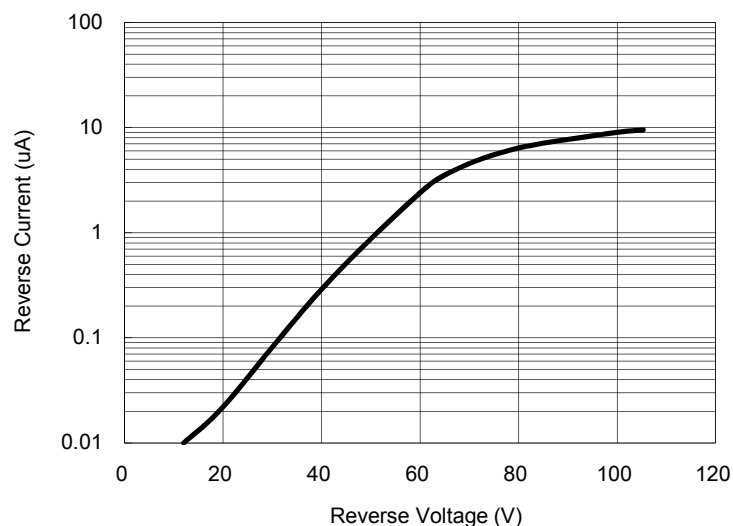


Fig. 3 Admissible Power Dissipation Curve

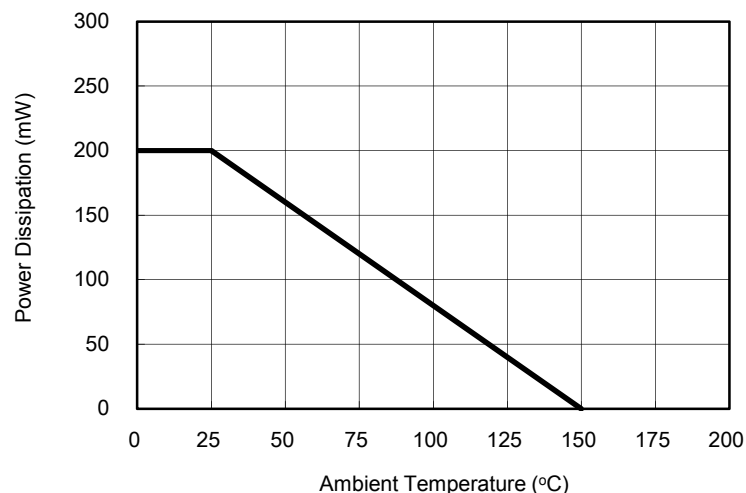
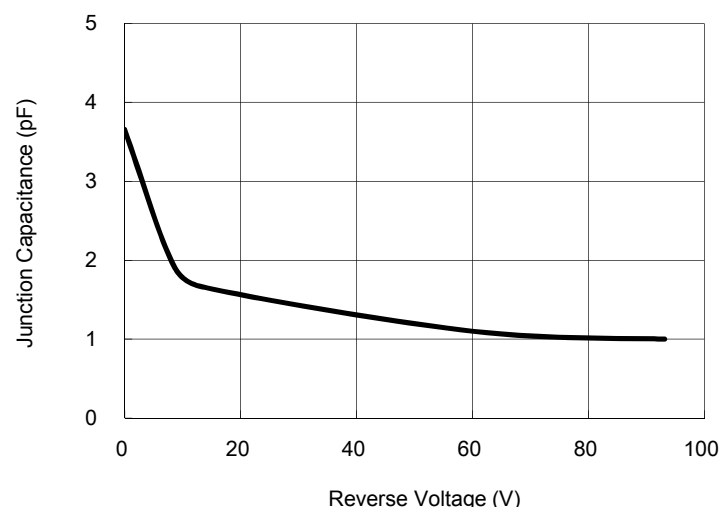


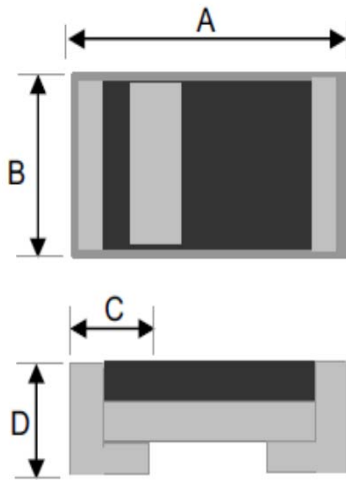
Fig. 4 Typical Junction Capacitance



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DIMENSIONS

**0603 (Ceramics)**



DIM.	Unit(mm)		Unit(inch)	
	Min	Max	Min	Max
A	1.45	1.65	0.057	0.065
B	0.70	0.90	0.028	0.035
C	0.25	0.45	0.010	0.018
D	0.55	0.75	0.022	0.030

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