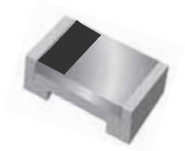
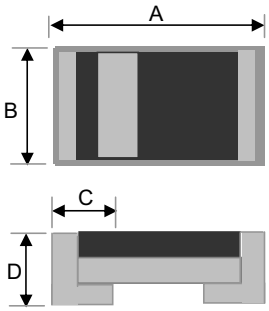
TAIWAN SEMICONDUCTOR

TS4148C RZG
200mW High Speed SMD Switching Diode

Small Signal Diode



0603



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
✧Halogen Free

Mechanical Data

✧Case :0603 standard package,molded plastic
✧Terminal: Gold plated,solderable per MIL-STD-750, Method 2026 guaranteed
✧High temperature soldering guaranteed: 260°C/10s
✧Polarity:Indicated by cathode band
✧Weight : 0.004gram (approximately)

Dimensions	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

Ordering Information

Part No.	Package	Packing
TS4148C RZG	0603	5K / 7" Reel

Maximum Ratings and Electrical Characteristics

Rating at 25°C ambient temperature unless otherwise specified.

Maximum Ratings

Type Number	Symbol	Value	Units
Power Dissipation	P_D	200	mW
Repetitive Peak Reverse Voltage	V_{RRM}	75	V
Repetitive Peak Forward Current	I_{FRM}	200	mA
Mean Forward Current	I_o	100	mA
Non-Repetitive Peak Forward Surge Current at t<1s and Tj=25°C at t≦8.3ms and Tj=25°C	I_{FSM}	 0.4 0.1	A
Thermal Resistance (Junction to Ambient)	RθJA	375	°C/W
Junction and Storage Temperature Range	T_J, T_{STG}	-55 to +150	°C

Electrical Characteristics

Type Number		Symbol	Min	Max	Units
Reverse Breakdown Voltage	I_R= 100μA	$V_{(BR)}$	-	75	V
Forward Voltage	I_F= 10mA	V_F	-	1.00	V
	I_F= 100mA		-	1.25	V
Reverse Leakage Current	V_R= 20V	I_R	-	0.025	μA
	V_R= 75V		-	5.0	
Junction Capacitance	V_R=0V, f=1.0MHz	C_J	-	4	pF
Reverse Recovery Time	I_F=I_R=10mA, R_L=100Ω	Trr	-	4.0	ns

Small Signal Diode

Rating and Sharacteristic Curves

FIG 1 Typical Forward Characteristics

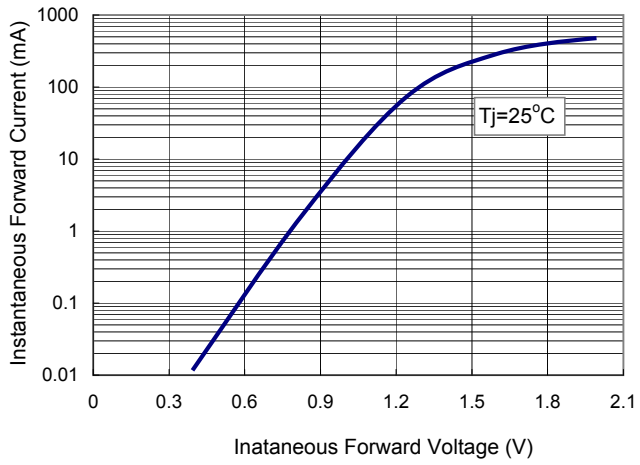


FIG 2 Typical Reverse Characteristics

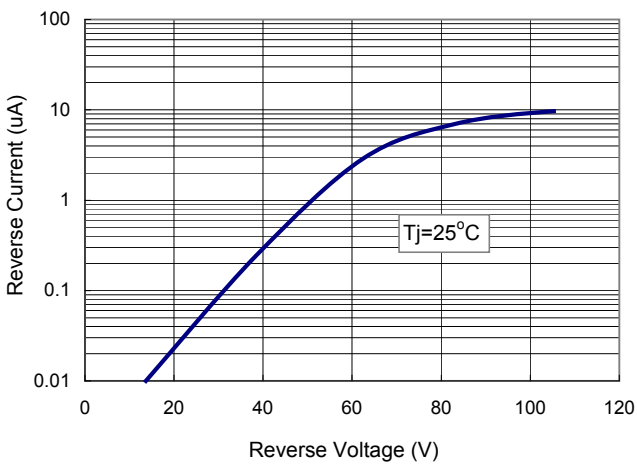


FIG 3 Admissible Power Dissipation Curve

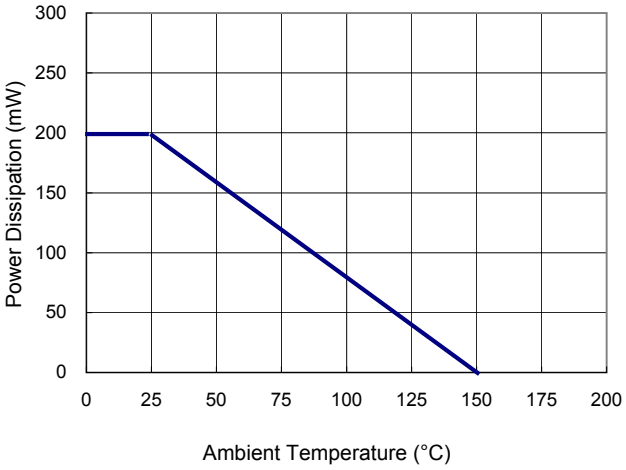


FIG 4 Typical Junction Capacitance