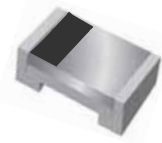


Small Signal Diode



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
- ✧ Green compound (Halogen free) with suffix "G" on packing code and prefix "G" on date code

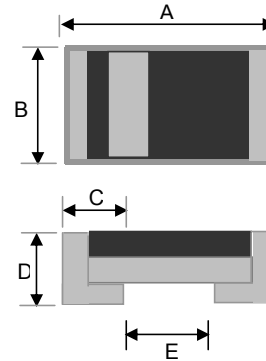
Mechanical Data

- ✧ Case :0805 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 : 0.006 gram (approximately)

Ordering Information

Part No.	Package	Packing
TS4148 RY	0805	5Kpcs / 7" Reel

0805



Dimensions	Unit (mm)		Unit (inch)	
	Min	Max	Min	Max
A	1.80	2.20	0.071	0.086
B	1.05	1.45	0.410	0.570
C	0.25	0.65	0.010	0.026
D	0.75	0.95	0.029	0.037
E	1.30	0.90	0.051	0.034

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	400	mW
Non-Repetitive Peak Reverse Voltage	V_{RSM}	100	V
Repetitive Peak Reverse Voltage	V_{RRM}	75	V
Repetitive Peak Forward Current	I_{FRM}	300	mA
Mean Forward Current	I_o	150	mA
Non-Repetitive Peak Forward Surge Current Tp=1sec square waveform 8.3ms single half sine waveform	I_{FSM}	0.5 2.0	A
Thermal Resistance (Junction to Ambient) (Note 1)	$R_{\theta JA}$	375	°C/W
Junction and Storage Temperature Range	T_J, T_{STG}	-65 to + 175	°C

Electrical Characteristics

Type Number	Symbol	Min	Max	Units
Reverse Breakdown Voltage (Note 2)	$V_{(BR)}$	-	75	V
Forward Voltage $I_F=10mA$	V_F	-	1.00	V
Reverse Leakage Current $V_R=20V$ $V_R=75V$	I_R	-	25	nA
		-	5	μA
Junction Capacitance $V_R=0, f=1.0MHz$	C_J		4.0	pF
Reverse Recovery Time (Note3)	T_{rr}		4	ns

Notes:1. Valid provided that electrodes are kept at ambient temperature

Notes:2. Test Condition : $I_R=100\mu A$

Notes:3. Test Condition : $I_F=10mA, I_R=1mA, R_L=100\Omega$

Small Signal Diode

Rating and Sharacteristic Curves

FIG 1 Typical Forward Characteristics

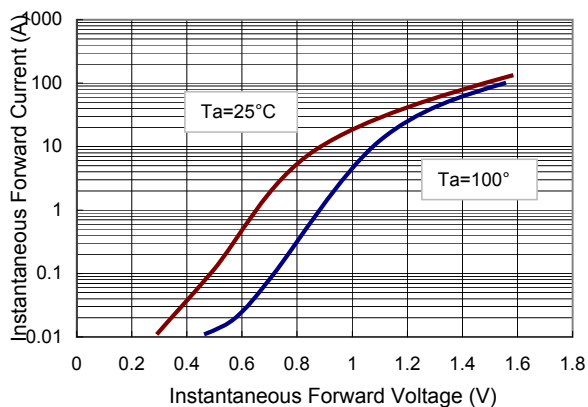


FIG 2 Reverse Current vs Reverse Voltage

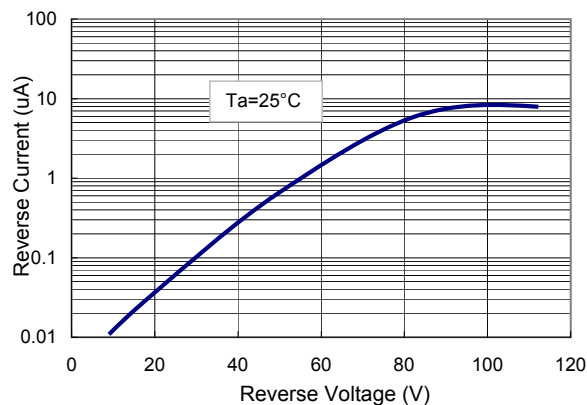


FIG 3 Admissible Power Dissipation Curve

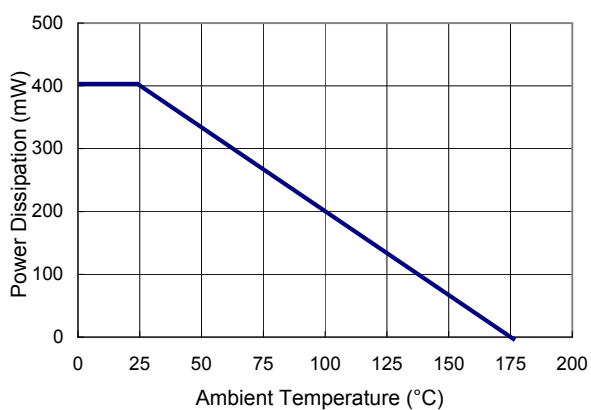


FIG 4 Typical Junction Capacitance

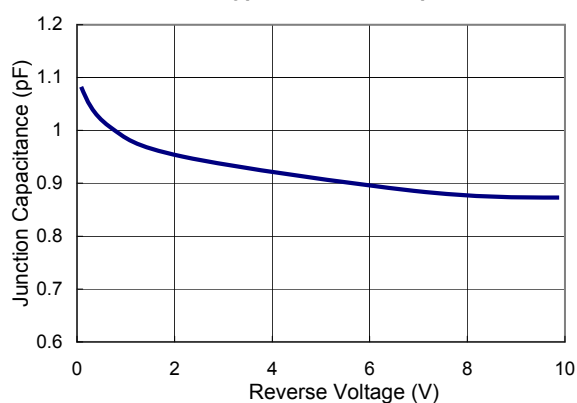


FIG 5 Forward Resistance vs. Forward Current

