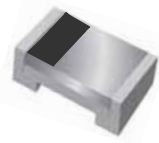


**Small Signal Diode**

**Features**

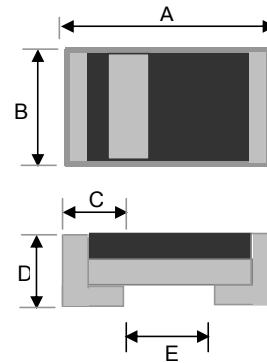
- ✧ Designed for mounting on small surface.
- ✧ Extremely thin/leadless package
- ✧ High mounting capability, strong surge with stand, high reliability.
- ✧ Pb free version and RoHS compliant
- ✧ Green compound (Halogen free) with suffix "G" on packing code and prefix "G" on date code

**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

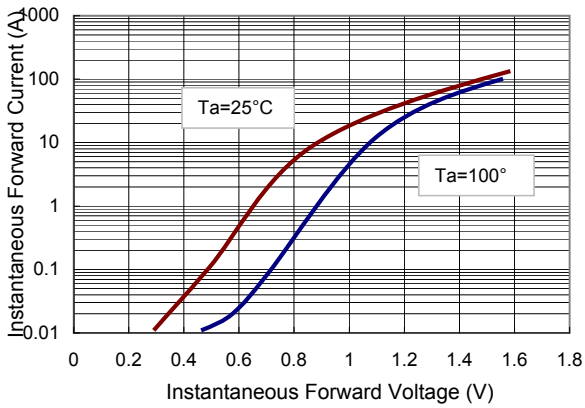
 Notes:2. Test Condition :  $I_R=100\mu A$ 

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

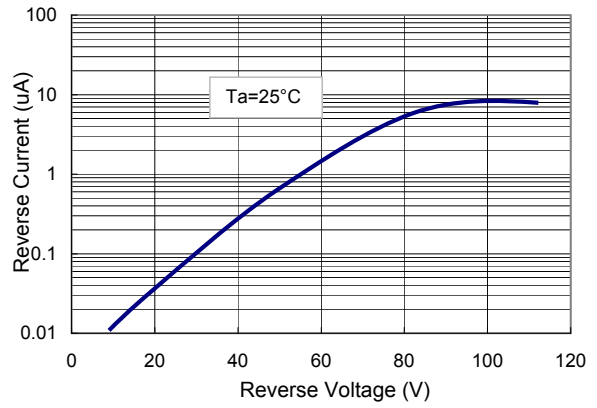
**Small Signal Diode**

**Rating and Sharacteristic Curves**

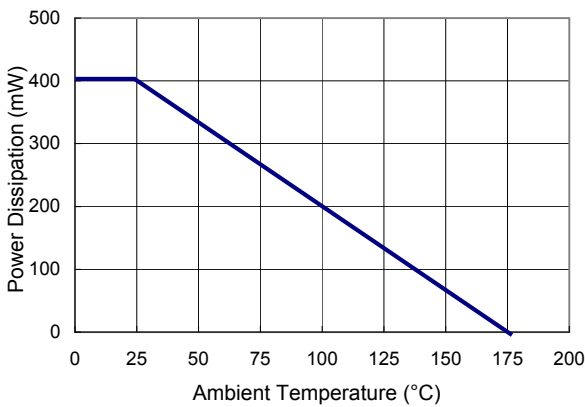
**FIG 1 Typical Forward Characteristics**



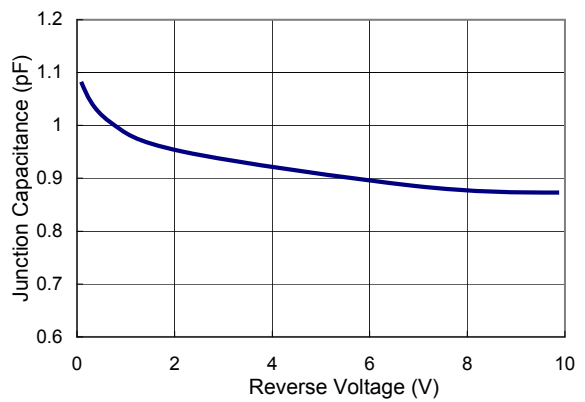
**FIG 2 Reverse Current vs Reverse Voltage**



**FIG 3 Admissible Power Dissipation Curve**



**FIG 4 Typical Junction Capacitance**



**FIG 5 Forward Resistance vs. Forward Current**

