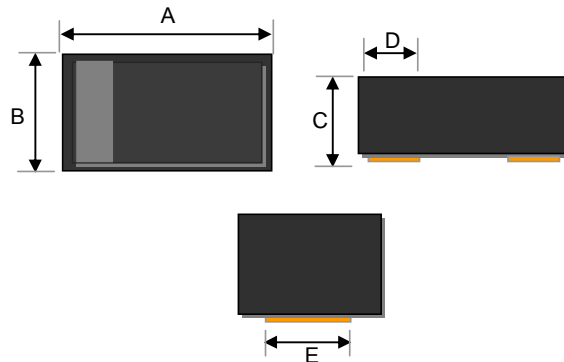


**Small Signal Diode**

**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
- ✧ Halogen free

**0603**

**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 : 0.003 gram (approximately)

Dimensions	Unit (mm)		Unit (inch)	
	Min	Max	Min	Max
A	1.60	1.80	0.063	0.071
B	0.80	1.00	0.031	0.039
C	0.70	0.85	0.027	0.033
D	Typ.	0.45	Typ.	0.018
E	Typ.	0.70	Typ.	0.028

**Ordering Information**

Part No.	Package	Packing
TS4148 RZG	0603	4Kpcs / 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	$P_D$	150	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	$I_{FSM}$	4.0	A
Pulse Width= 1 $\mu$ sec		1.0	
Pulse Width= 1 msec			
Thermal Resistance (Junction to Ambient) (Note 1)	$R_{\theta JA}$	666	°C/W
Junction and Storage Temperature Range	$T_J, T_{STG}$	-40 to + 125	°C

**Electrical Characteristics**

Type Number	Symbol	Min	Max	Units
Reverse Breakdown Voltage (Note 2)	$V_{(BR)}$	-	75	V
Forward Voltage $I_F=50mA$	$V_F$	-	1.00	V
Reverse Leakage Current $V_R=20V$	$I_R$	-	25	nA
		$V_R=75V$	-	2.5
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

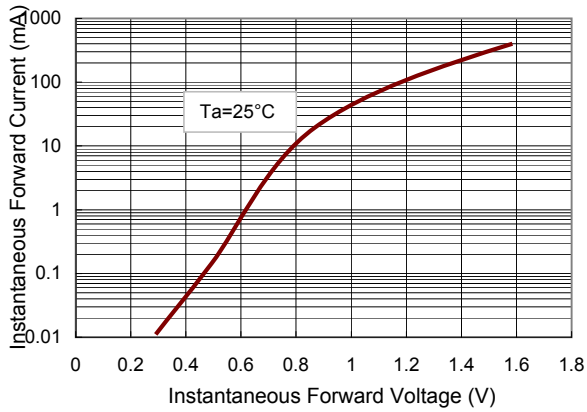
 Notes:2. Test Condition :  $I_R=100\mu A$ 

 Notes:3. Test Condition :  $I_F=I_R=30mA, R_L=100\Omega, I_{RR}=3mA$

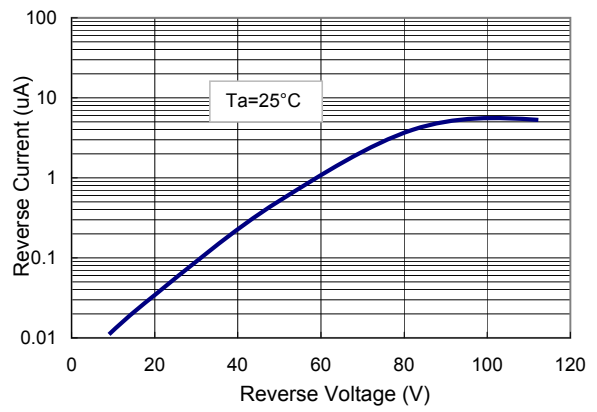
**Small Signal Diode**

**Rating and Sharacteristic Curves**

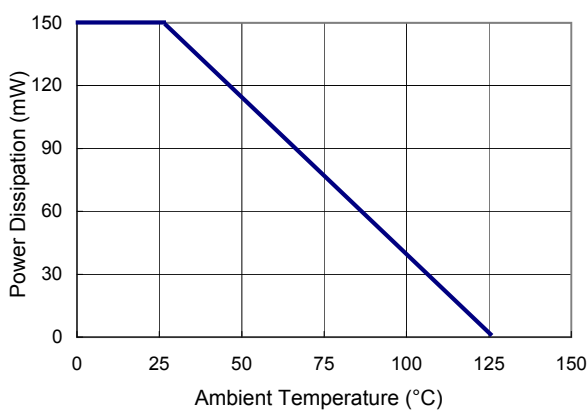
**FIG 1 Typical Forward Characteristics**



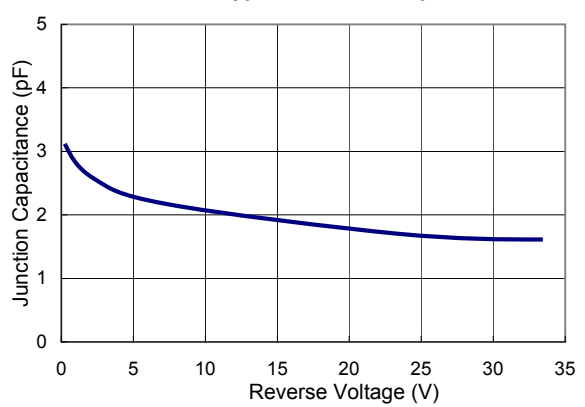
**FIG 2 Reverse Current vs Reverse Voltage**



**FIG 3 Admissible Power Dissipation Curve**



**FIG 4 Typical Junction Capacitance**



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

