

**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 :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)

**Ordering Information**

Part No.	Package	Packing
TS4448 RZ	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
Repetitive Peak Reverse Voltage	$V_{RRM}$	100	V
Repetitive Peak Forward Current	$I_{FRM}$	300	mA
Mean Forward Current	$I_o$	125	mA
Non-Repetitive Peak Forward Surge Current	$I_{FSM}$	2.0	A
Pulse Width= 1 $\mu$ sec		1.0	
Pulse Width= 8.3 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

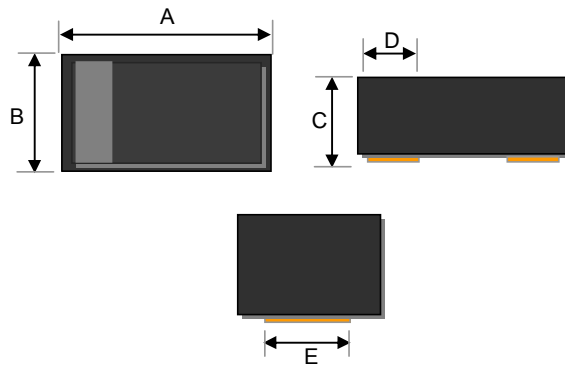
**Electrical Characteristics**

Type Number	Symbol	Min	Max	Units
Reverse Breakdown Voltage (Note 2)	$V_{(BR)}$	-	80	V
Forward Voltage	$V_F$	0.62	0.72	V
			$I_F=5mA$	
Reverse Leakage Current	$I_R$	-	25	nA
			$V_R=20V$	
Junction Capacitance	$C_J$	-	9.0	pF
Reverse Recovery Time (Note3)	$T_{rr}$	-	9	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 :  $I_F=I_R=10mA, R_L=100\Omega, I_{RR}=1mA$

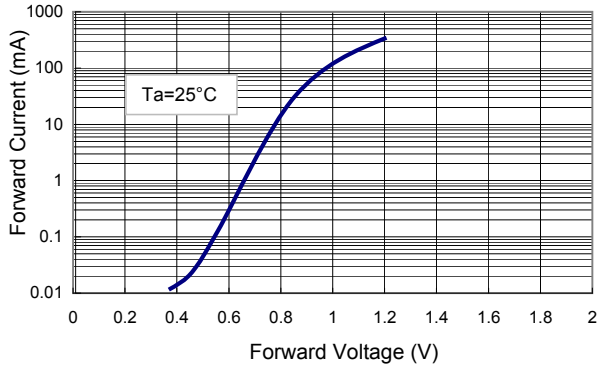
**0603**


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

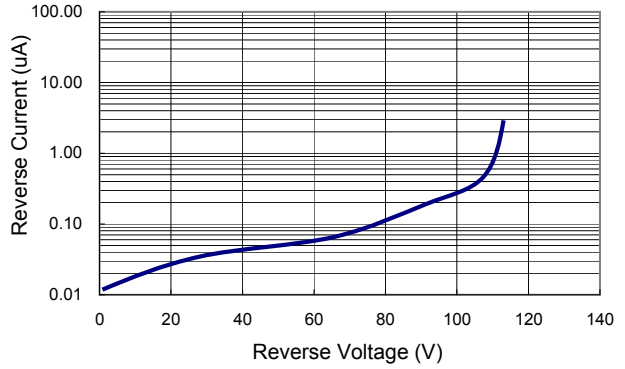
**Small Signal Diode**

**Rating and Sharacteristic Curves**

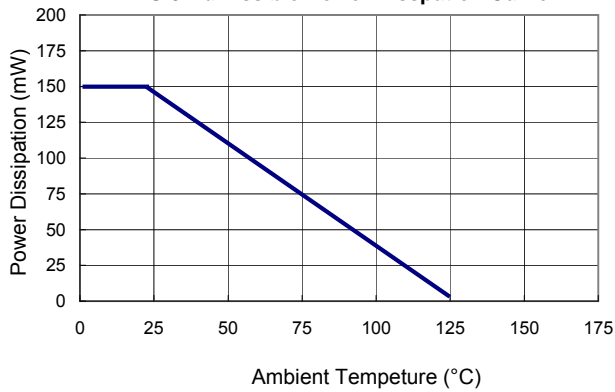
**FIG 1 Typical Forward Characteristics**



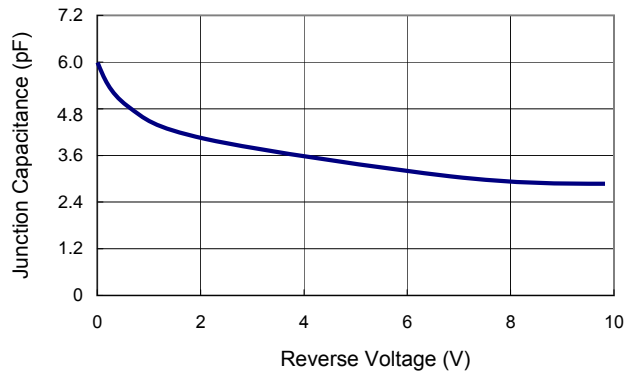
**FIG 2 Reverse Current vs Reverse**



**FIG 3 Admissible Power Dissipation Curve**



**FIG 4 Typical Junction Capacitance**



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

