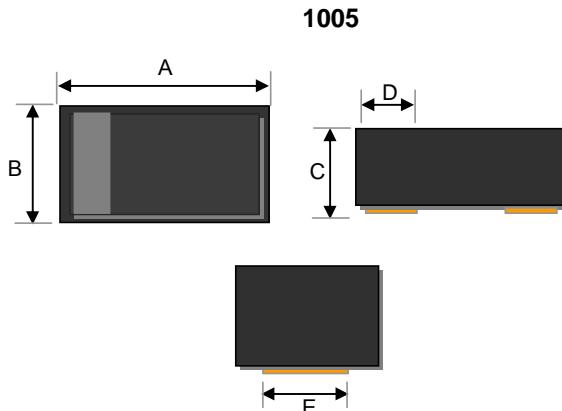


### Small Signal Diode



#### 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



#### Mechanical Data

- ◊ Case :1005 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)

Dimensions	Unit (mm)		Unit (inch)	
	Min	Max	Min	Max
A	2.40	2.60	0.095	0.102
B	1.10	1.30	0.043	0.051
C	0.70	0.90	0.027	0.035
D	Typ.	0.50	Typ.	0.020
E	Typ.	1.00	Typ.	0.040

#### Ordering Information

Part No.	Package	Packing
TS4148 RWG	1005	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 <sub>D</sub>	350	mW
Non-Repetitive Peak Reverse Voltage	V <sub>RSM</sub>	100	V
Repetitive Peak Reverse Voltage	V <sub>RRM</sub>	75	V
Repetitive Peak Forward Current	I <sub>FRM</sub>	300	mA
Mean Forward Current	I <sub>o</sub>	150	mA
Non-Repetitive Peak Forward Surge Current	I <sub>FSM</sub>	4.0	A
Pulse Width= 1 μsec		1.0	
Thermal Resistance (Junction to Ambient) (Note 1)	R <sub>θJA</sub>	500	°C/W
Junction and Storage Temperature Range	T <sub>J</sub> , T <sub>STG</sub>	-40 to + 125	°C

##### Electrical Characteristics

Type Number	Symbol	Min	Max	Units
Reverse Breakdown Voltage (Note 2)	V <sub>(BR)</sub>	-	75	V
Forward Voltage I <sub>F</sub> = 50mA	V <sub>F</sub>	-	1.00	V
Reverse Leakage Current V <sub>R</sub> = 20V V <sub>R</sub> = 75V	I <sub>R</sub>	-	25	nA
		-	2.5	μA
Junction Capacitance V <sub>R</sub> =0, f=1.0MHz	C <sub>J</sub>		4.0	pF
Reverse Recovery Time (Note3)	Tr		4	ns

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

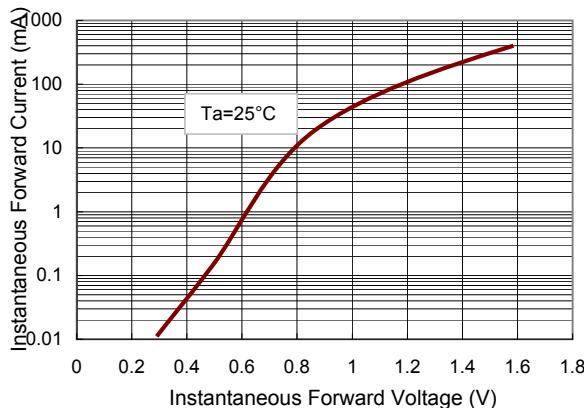
Notes:2. Test Condition : I<sub>R</sub>=100μA

Notes:3. Test Condition : I<sub>F</sub>=I<sub>R</sub>=30mA, R<sub>L</sub>=100Ω, I<sub>RR</sub>=3mA

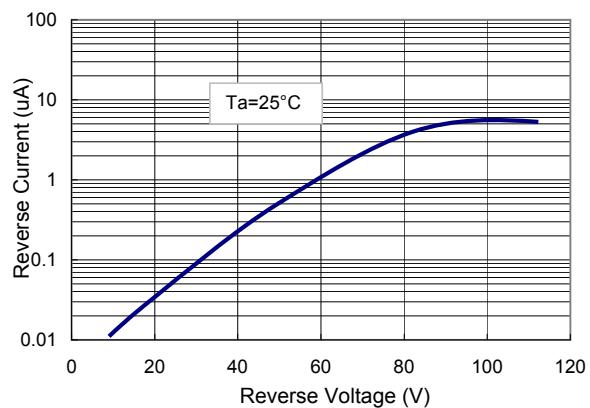
## Small Signal Diode

### Rating and Shacteristic Curves

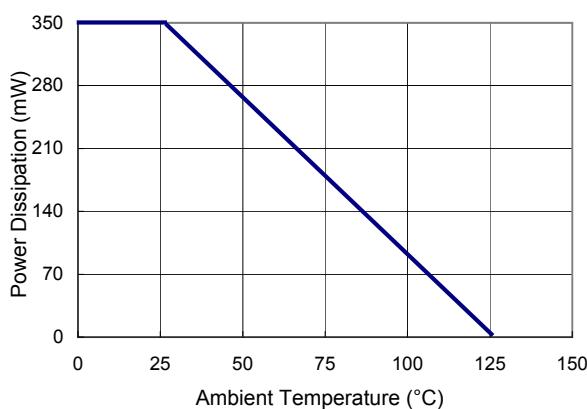
**FIG 1 Typical Forward Characteristics**



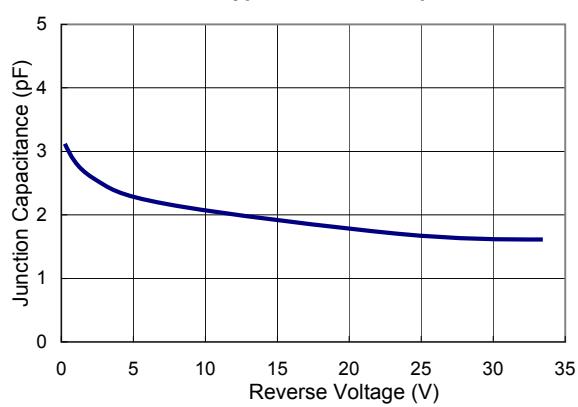
**FIG 2 Reverse Current vs Reverse Voltage**



**FIG 3 Admissible Power Dissipation Curve**



**FIG 4 Typical Junction Capacitance**



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

