

150mA, 75V Switching Diode

FEATURES

- Low power loss, high efficiency
- Ideal for automated placement
- High surge current capability
- Compliant to RoHS directive 2011/65/EU and in accordance to WEEE 2002/96/EC
- Halogen-free according to IEC 61249-2-21

APPLICATIONS

- Switching mode power supply (SMPS)

KEY PARAMETERS		
PARAMETER	VALUE	UNIT
$I_{F(AV)}$	150	mA
V_{RRM}	75	V
I_{FSM}	4	A
V_F at $I_F=50mA$	1	V
$T_{J\ MAX}$	125	°C
Package	1005	
Configuration	Single dice	

MECHANICAL DATA

- Case: 1005
- Molding compound meets UL 94 V-0 flammability rating
- Moisture sensitivity level: level 1, per J-STD-020
- Packing code with suffix "G" means green compound (halogen-free)
- Terminal: Matte Au plated leads, solderable per J-STD-002
- Meet JESD 201 class 1A whisker test
- Polarity: Indicated by cathode band
- Weight: 6 mg (approximately)



ABSOLUTE MAXIMUM RATINGS ($T_A = 25^\circ\text{C}$ unless otherwise noted)

PARAMETER	SYMBOL	TS4148 RWG	UNIT
Repetitive peak reverse voltage	V_{RRM}	75	V
Forward current	$I_{F(AV)}$	150	mA
Non-Repetitive Peak Forward Surge Current	I_{FSM}	Pulse Width=1 μ s	4
		Pulse Width=1ms	1
Junction temperature range	T_J	-40 to +125	°C
Storage temperature range	T_{STG}	-40 to +125	°C

THERMAL PERFORMANCE

PARAMETER	SYMBOL	LIMIT	UNIT
Junction-to-ambient thermal resistance	$R_{\theta JA}$	500	°C/W

ELECTRICAL SPECIFICATIONS ($T_A = 25^\circ\text{C}$ unless otherwise noted)					
PARAMETER	CONDITIONS	SYMBOL	TYP	MAX	UNIT
Forward voltage per diode ⁽¹⁾	$I_F = 50\text{mA}$, $T_J = 25^\circ\text{C}$	V_F	-	1	V
Reverse current @ rated V_R per diode ⁽²⁾	$V_R = 20\text{V}$ $T_J = 25^\circ\text{C}$	I_R	-	25	nA
	$V_R = 75\text{V}$ $T_J = 25^\circ\text{C}$		-	2.5	μA
Junction capacitance	1 MHz, $V_R = 0\text{V}$	C_J	-	4	pF

Notes:

1. Pulse test with $PW = 0.3\text{ ms}$
2. Pulse test with $PW = 30\text{ ms}$

ORDERING INFORMATION				
PART NO.	PACKING CODE	PACKING CODE SUFFIX(*)	PACKAGE	PACKING
TS4148 (Note 1)	RW	G	1005	4K / 7" Reel

Notes:

*: optional available

EXAMPLE				
EXAMPLE P/N	PART NO.	PACKING CODE	PACKING CODE SUFFIX	DESCRIPTION
TS4148 RWG	TS4148	RW	G	Green compound

CHARACTERISTICS CURVES

($T_A = 25^\circ\text{C}$ unless otherwise noted)

Fig.1 Typical Forward Characteristics

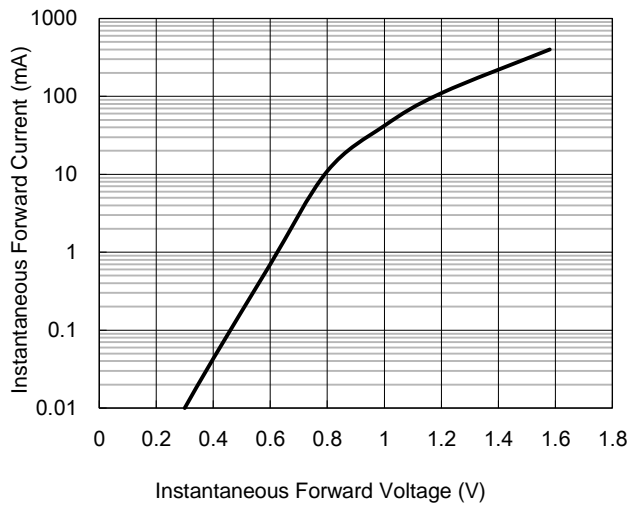


Fig.2 Reverse Current VS. Reverse Voltage

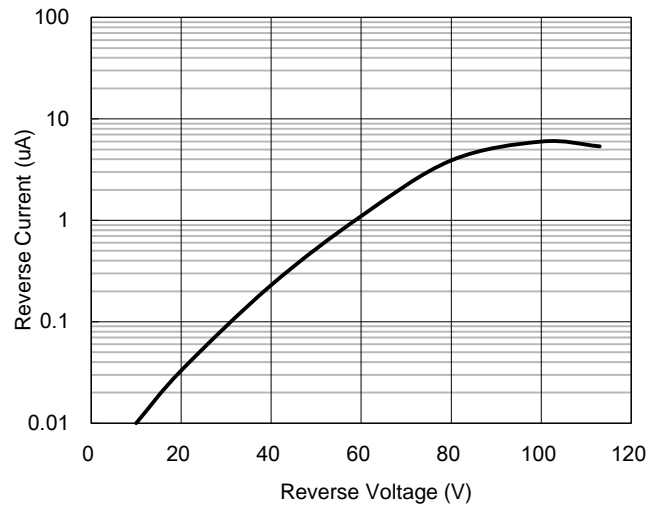


Fig.3 Admissible Power Dissipation Curve

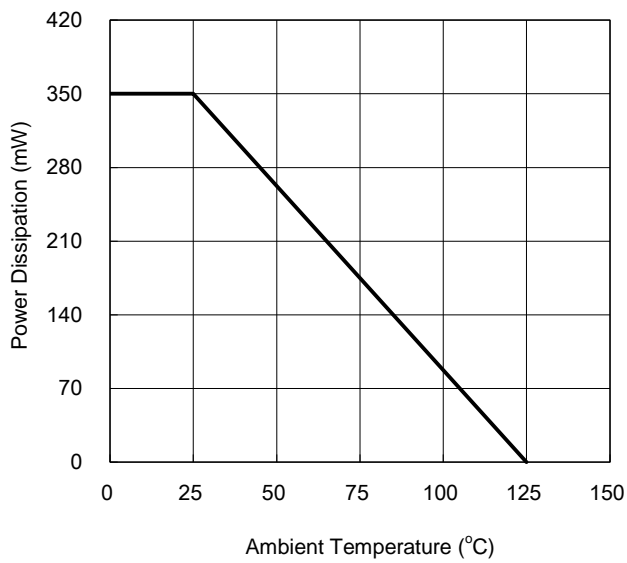
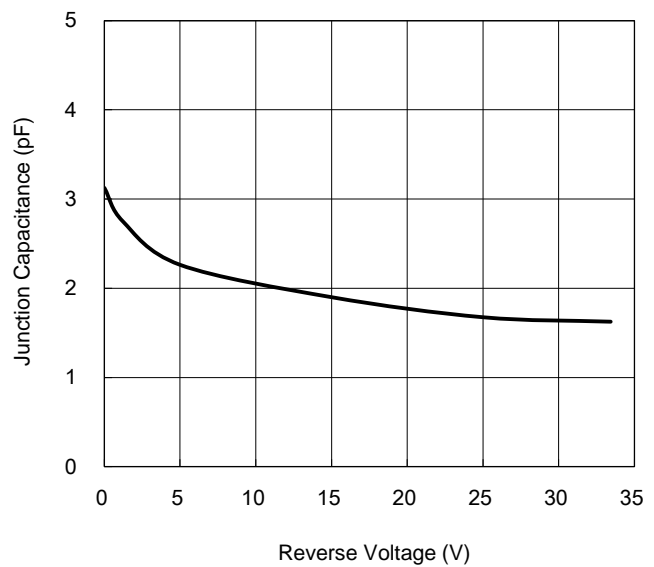


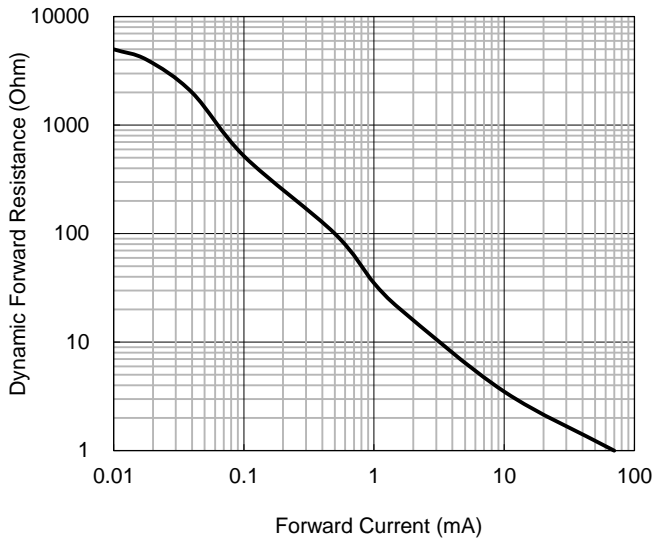
Fig.4 Typical Junction Capacitance



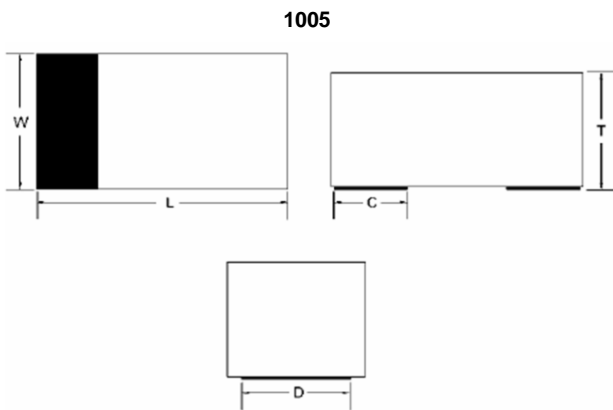
CHARACTERISTICS CURVES

($T_A = 25^\circ\text{C}$ unless otherwise noted)

**Fig.5 Forward Resistance VS.
Forward Current**



PACKAGE OUTLINE DIMENSION



DIM.	Unit(mm)			Unit(inch)		
	Min	Typ	Max	Min	Typ	Max
L	2.40	-	2.60	0.094	-	0.102
W	1.10	-	1.30	0.043	-	0.051
T	0.70	-	0.90	0.028	-	0.035
C	-	0.50	-	-	0.020	-
D	-	1.00	-	-	0.039	-

MARKING DIAGRAM



Notice

Specifications of the products displayed herein are subject to change without notice. TSC or anyone on its behalf, assumes no responsibility or liability for any errors or inaccuracies.

Information contained herein is intended to provide a product description only. No license, express or implied, to any intellectual property rights is granted by this document. Except as provided in TSC's terms and conditions of sale for such products, TSC assumes no liability whatsoever, and disclaims any express or implied warranty, relating to sale and/or use of TSC products including liability or warranties relating to fitness for a particular purpose, merchantability, or infringement of any patent, copyright, or other intellectual property right.

The products shown herein are not designed for use in medical, life-saving, or life-sustaining applications. Customers using or selling these products for use in such applications do so at their own risk and agree to fully indemnify TSC for any damages resulting from such improper use or sale.

X-ON Electronics

Largest Supplier of Electrical and Electronic Components

Click to view similar products for [Diodes - General Purpose, Power, Switching category:](#)

Click to view products by [Taiwan Semiconductor manufacturer:](#)

Other Similar products are found below :

[RD0306T-H](#) [BAV17-TR](#) [BAV19-TR](#) [1N3611](#) [NTE156A](#) [NTE525](#) [NTE571](#) [NTE574](#) [NTE5804](#) [NTE5806](#) [NTE6244](#) [1SS181-TP](#)
[1SS193,LF](#) [1SS400CST2RA](#) [SDAA13](#) [SHN2D02FUTW1T1G](#) [LS4151GS08](#) [1N4449](#) [1N456A](#) [1N4934-E3/73](#) [1N914B](#) [1N914BTR](#)
[RFUH20TB3S](#) [BAS 28 E6327](#) [BAV199-TP](#) [BAW56DWQ-7-F](#) [BAW75-TAP](#) [MM230L-CAA](#) [IDW40E65D1](#) [JAN1N3600](#) [LL4151-GS18](#)
[053684A](#) [SMMSD4148T3G](#) [707803H](#) [NSVDAN222T1G](#) [SP000010217](#) [ACDSW4448-HF](#) [CDSZC01100-HF](#) [BAV199E6433HTMA1](#)
[BAV70M3T5G](#) [SMBT2001T1G](#) [NTE5801](#) [NTE5800](#) [NTE5808](#) [NTE6240](#) [NTE6248](#) [DLM10C-AT1](#) [BAS28-7](#) [BAW56HDW-13](#) [BAS28](#)
[TR](#)