

**SURFACE MOUNT
FAST SWITCHING DIODE**

**REVERSE VOLTAGE – 75 Volts
FORWARD CURRENT – 0.15 Ampere**

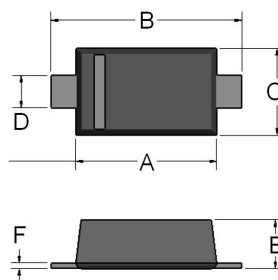
FEATURES

- Fast switching device ($T_{rr} < 4.0$ ns)
- Extremely Small SOD-523F Package
- Flat Lead SOD-523F Small Outline Plastic Package
- Surface device type mounting
- General Purpose Diodes
- Green EMC
- Matte Tin(Sn) Lead Finish
- RoHS compliant
- Band Indicates Cathode

MECHANICAL DATA

- Polarity: Color band denotes cathode

SOD-523F



SOD-523F		
DIM.	MIN.	MAX.
A	1.10	1.30
B	1.50	1.70
C	0.7	0.9
D	0.25	0.35
E	0.50	0.70
F	0.05	0.20

All Dimensions in millimeter

Maximum Ratings & Thermal Characteristics @ $T_A = 25^\circ\text{C}$ unless otherwise specified

Characteristic	Symbol	1N4148WTF	1N4448WTF	Units
Repetitive Peak Reverse Voltage	VRRM	75		V
Repetitive Peak Forward Current	I_{FRM}	300		mA
Average Rectified Output Current	I_o	150		mA
Power Dissipation	P_D	200		mW
Operating Temperature Range	T_J	+150		$^\circ\text{C}$
Storage Temperature Range	T_{STG}	-55~+150		$^\circ\text{C}$
Non-Repetitive Peak Reverse Voltage	VRSM	100		V

Electrical Characteristics @ $T_A = 25^\circ\text{C}$ unless otherwise specified

Characteristic	Test Condition	Symbol	1N4148WTF	1N4448WTF	Unit
Breakdown voltage	$I_R = 100\mu\text{A}$	BV	100		V
	$I_R = 5\mu\text{A}$		75		
Maximum Forward Voltage	$I_F = 5\text{mA}$	V_F	-	720	mV
	$I_F = 10\text{mA}$		1000	-	
	$I_F = 100\text{mA}$		-	1000	
Maximum DC Reverse Current at Rated DC Blocking Voltage	$V_R = 75\text{V}$	I_R	5		uA
	$V_R = 20\text{V}$		25		nA
Typical Diode Capacitance	$V_R = 0\text{V}, f = 1\text{MHz}$	C_D	4		pF
Reverse Recovery time	$I_F = 10\text{mA}$, $I_R = 60\text{mA}$, $R_L = 100\Omega$, $I_{RR} = 1\text{mA}$,	trr	4		ns

RATING AND CHARACTERISTIC CURVES
1N4148WTF / 1N448WTF



Figure 1. Power Dissipation vs Ambient Temperature
 Valid provided leads at a distance of 0.8mm from case are kept at ambient temperature

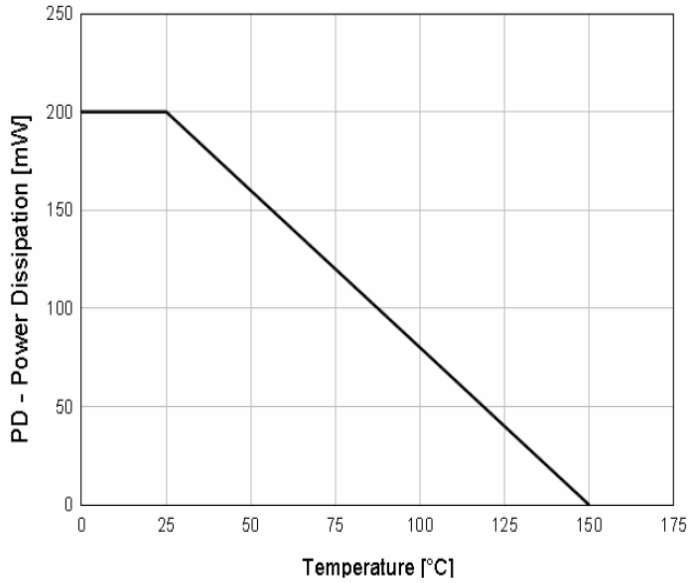


Figure 2. Total Capacitance

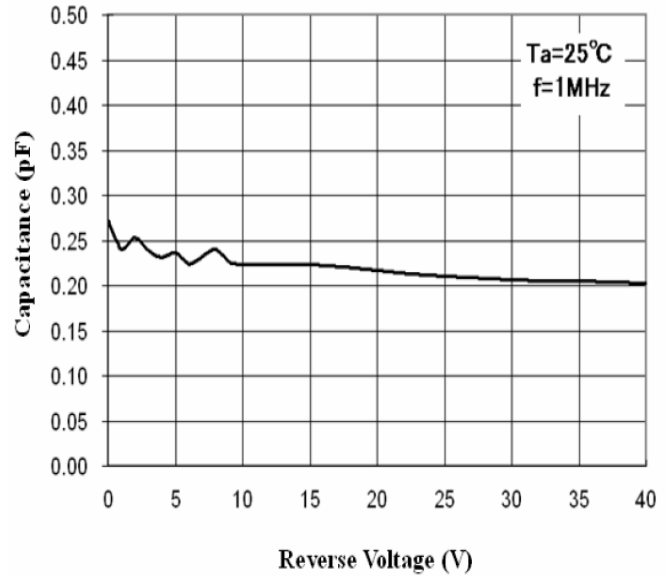


Figure 3. Reverse Voltage vs Reverse Current

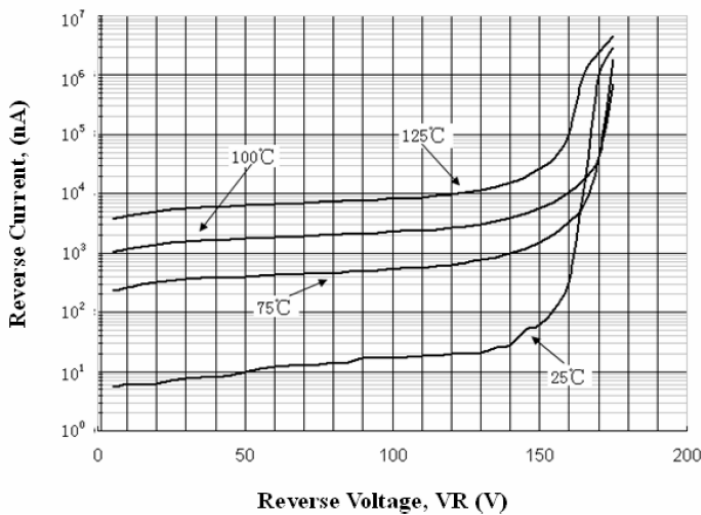
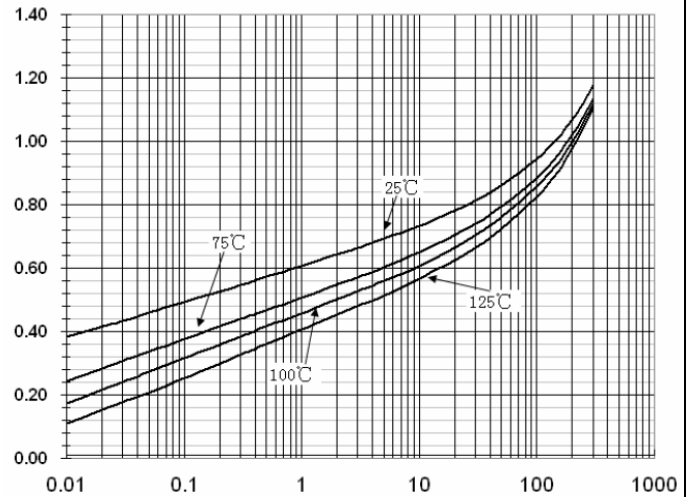


Figure 4. Forward Voltage vs Ambient Temperature



Device Marking:

Device P/N	Marking code	Equivalent Circuit Diagram
1N4148WTF	E1	
1N4448WTF	E2	

Important Notice and Disclaimer

LSC reserves the right to make changes to this document and its products and specifications at any time without notice. Customers should obtain and confirm the latest product information and specifications before final design, purchase or use.

LSC makes no warranty, representation or guarantee regarding the suitability of its products for any particular purpose, nor does LSC assume any liability for application assistance or customer product design. LSC does not warrant or accept any liability with products which are purchased or used for any unintended or unauthorized application.

No license is granted by implication or otherwise under any intellectual property rights of LSC.

LSC products are not authorized for use as critical components in life support devices or systems without express written approval of LSC.

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 [Lite-On manufacturer](#):

Other Similar products are found below :

[MCL4151-TR3](#) [MMBD3004S-13-F](#) [RD0306T-H](#) [RGP30G-E373](#) [BAQ333-TR](#) [BAQ335-TR](#) [BAQ33-GS18](#) [BAS1602VH6327XT](#) [BAV17-TR](#) [BAV19-TR](#) [BAV301-TR](#) [BAW27-TAP](#) [NSVBAV23CLT1G](#) [NTE525](#) [1SS181-TP](#) [1SS184-TP](#) [1SS193,LF](#) [1SS193-TP](#) [1SS400CST2RA](#) [SBAV99LT3G](#) [SDAA13](#) [LL4448-GS18](#) [SHN2D02FUTW1T1G](#) [LS4150GS18](#) [LS4151GS08](#) [SMMBD7000LT3G](#) [1N4449](#) [1N4934-E3/73](#) [APT100DL60HJ](#) [RFUH20TB3S](#) [RGP30G-E354](#) [RGP30M-E3/73](#) [D291S45T](#) [MCL4151-TR](#) [BAS 16-02L E6327](#) [BAS 16-02V H6327](#) [BAS 21U E6327](#) [BAS 28 E6327](#) [BAS33-TAP](#) [BAS 70-02V H6327](#) [BAV300-TR](#) [BAV303-TR3](#) [BAW27-TR](#) [BAW56DWQ-7-F](#) [BAW56M3T5G](#) [BAW75-TAP](#) [BAW76-TR](#) [MM230L-CAA](#) [MMSD914-TP](#) [IDW40E65D1](#)