

SEMICONDUCTOR

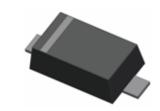
200mW SOD-523 SURFACE MOUNT Very Small Outline Flat Lead Plastic Package General Purpose Application Fast Switching Diode

Absolute Maximum Ratings T_A = 25°C unless otherwise noted

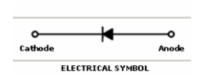
Symbol	Parameter	Value	Units
P _D	Power Dissipation	200	mW
T _{STG}	Storage Temperature Range	-55 to +150	°C
TJ	Operating Junction Temperature +150		°C
V _{RSM}	Non-Repetitive Peak Reverse Voltage	100	V
V _{RRM}	Repetitive Peak Reverse Voltage	75	V
I _{FRM}	Repetitive Peak Forward Current	petitive Peak Forward Current 300	
Ιο	Continuous Forward Current	150	mA
I _{FSM}	Non-repetitive Peak Forward Surge Current (Pulse Width=1us)	2	А

These ratings are limiting values above which the serviceability of the diode may be impaired.

Green Product



SOD-523 Flat Lead



Specification Features:

- Fast Switching Device (T_{RR} <4.0 nS)
- General Purpose Diodes
- Extremely Small SOD-523 Package
- Flat Lead SOD-523 Small Outline Plastic Package
- Surface Device Type Mounting
- RoHS Compliant
- Green EMC
- Matte Tin(Sn) Lead Finish
- Band Indicates Cathode

DEVICE MARKING CODE:

Device Type	Device Marking		
TC1N4148WT	E1		
TC1N4448WT	E2		
TC1N914BWT	E3		

Electrical Characteristics $T_A = 25$ °C unless otherwise noted

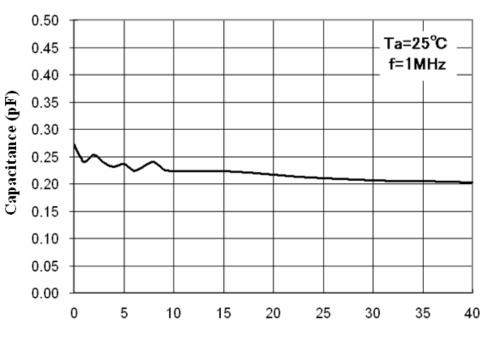
Symbol	Parameter		Test Condition	Limits		Unit	
				Min	Max	Oilit	
В۷	Breakdown Voltage		I _R =100μA	100		\/-lt-	
			I _R =5µA	75		Volts	
I _R	Reverse Leakage Curr	ent	V _R =20V		25	nA	
			V _R =75V		5	μΑ	
V _F	Forward Voltage	TC1N4448WT, TC1N914BWT	I _F =5mA	0.62	0.72		
		TC1N4148WT	I _F =10mA		1.0	Volts	
		TC1N4448WT, TC1N914BWT	I _F =100mA		1.0		
T _{RR}	Reverse Recovery Time		I _F =10mA				
			I _R =60mA		4	~C	
			R _L =100Ω		4	nS	
			I _{RR} =1mA				
С	Capacitance		V _R =0V, f=1M _{HZ}		4	pF	

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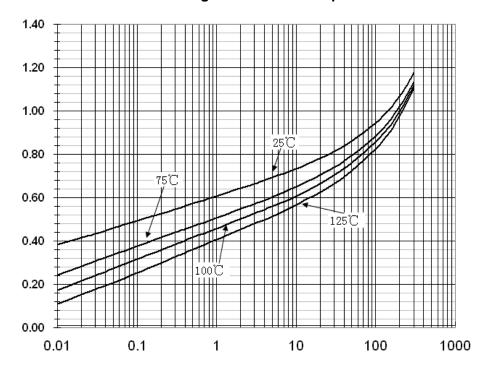
Typical Performance Characteristics

Total Capacitance



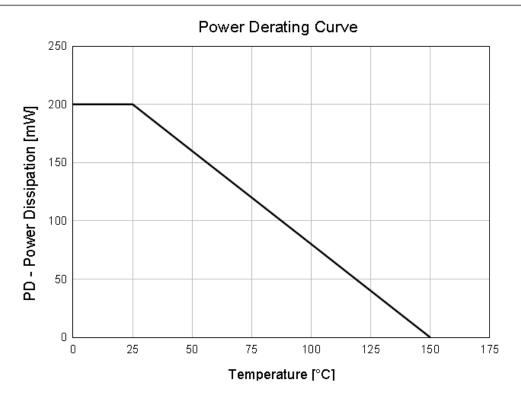
Reverse Voltage (V)

Forward Voltage vs Ambient Temperature

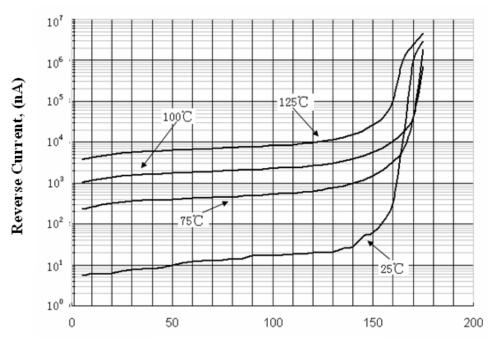


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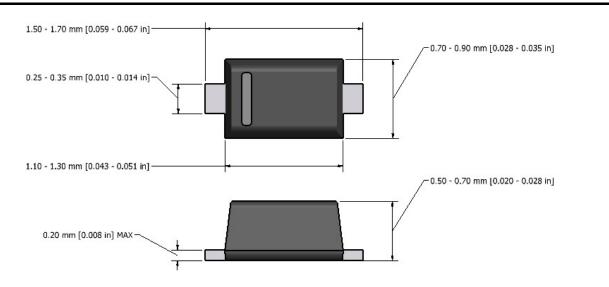
Reverse Current vs Reverse VoltageReverse



Reverse Voltage, VR (V)



Flat Lead SOD-523 Package Outline



Note: Dimensions are exclusive of Burrs, Mold Flash & Tie Bar extrusions.





NOTICE

The information presented in this document is for reference only. Tak Cheong reserves the right to make changes without notice for the specification of the products displayed herein.

The product listed herein is designed to be used with ordinary electronic equipment or devices, and not designed to be used with equipment or devices which require high level of reliability and the malfunction of with would directly endanger human life (such as medical instruments, transportation equipment, aerospace machinery, nuclear-reactor controllers, fuel controllers and other safety devices), Tak Cheong Semiconductor Co., Ltd., or anyone on its behalf, assumes no responsibility or liability for any damagers resulting from such improper use of sale.

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