

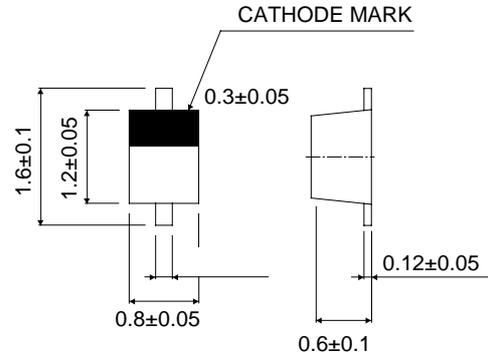
RoHS Compliant Product

A suffix of "-C" specifies halogen & lead-free

SOD-523

**FEATURES**

Fast Switching Speed  
Surface Mount Package Ideally Suited for Automatic Insertion  
For General Purpose Switching Applications  
High Conductance



**MARKING: 48**

Dimensions in millimeters

**Maximum Ratings and Electrical Characteristics, Single Diode @T<sub>A</sub>=25°C**

Parameter	Symbol	Limits	Unit
Non-Repetitive Peak reverse voltage	V <sub>RM</sub>	100	V
Peak Repetitive Peak reverse voltage	V <sub>RRM</sub>	100	V
Working Peak Reverse Voltage	V <sub>RWM</sub>	100	
DC Blocking Voltage	V <sub>R</sub>	75	
RMS Reverse Voltage	V <sub>R(RMS)</sub>	53	V
Forward Continuous Current	I <sub>FM</sub>	500	mA
Average Rectified Output Current	I <sub>O</sub>	250	mA
Peak forward surge current @=1.0µs	I <sub>FSM</sub>	4.0	A
@=1.0s		2.0	
Power Dissipation	P <sub>d</sub>	150	mW
Thermal Resistance Junction to Ambient	R <sub>θJA</sub>	625	K/W
Storage temperature	T <sub>STG</sub>	-65~+150	°C

**Electrical Ratings @T<sub>A</sub>=25°C**

Parameter	Symbol	Min.	Typ.	Max.	Unit	Conditions
Reverse Breakdown Voltage	V <sub>(BR)R</sub>	75			V	I <sub>R</sub> =5µA
	V <sub>(BR)R</sub>	100			V	I <sub>R</sub> =100µA
Forward voltage	V <sub>F1</sub>	0.62		0.72	V	I <sub>F</sub> =5mA
	V <sub>F2</sub>			1.0	V	I <sub>F</sub> =100mA
Reverse current	I <sub>R</sub>			25	nA	V <sub>R</sub> =20V
Capacitance between terminals	C <sub>T</sub>			4	pF	V <sub>R</sub> =0V, f=1MHz
Reverse Recovery Time	t <sub>rr</sub>			4	ns	I <sub>F</sub> =I <sub>R</sub> =10mA I <sub>rr</sub> =0.1X I <sub>R</sub> , R <sub>L</sub> =100Ω

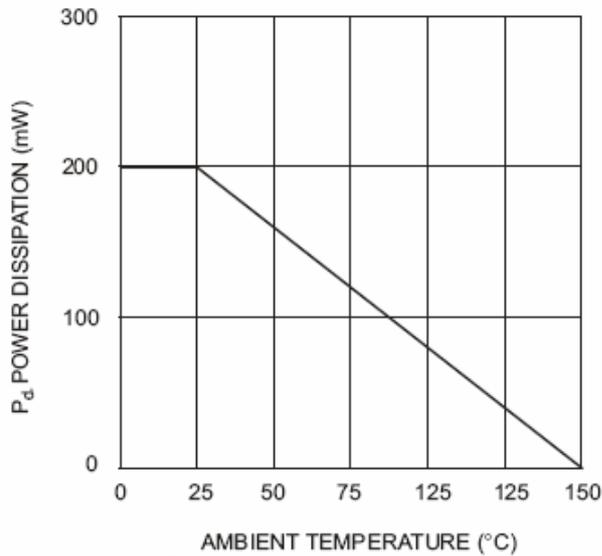


Fig. 1 Forward Current Derating Curve

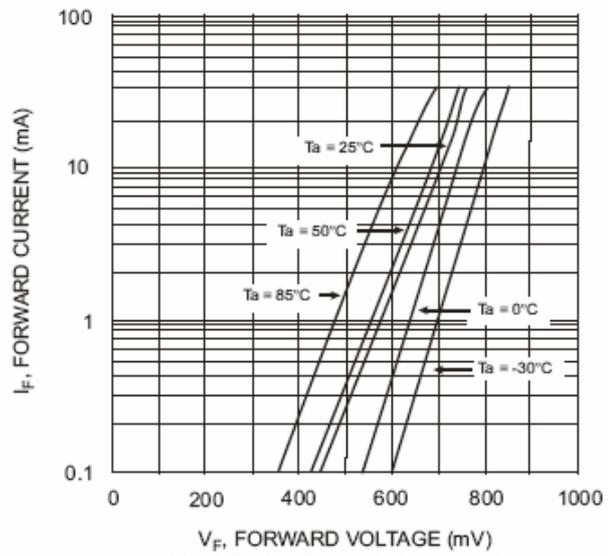


Fig. 2 Typical Forward Characteristics

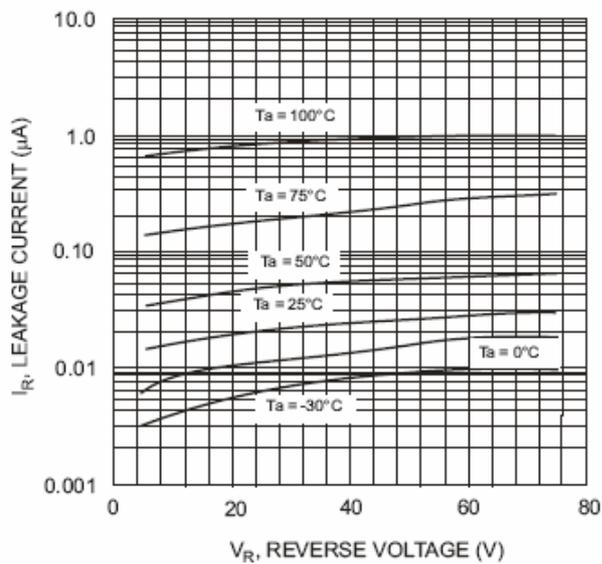


Fig. 3 Typical Reverse Characteristics

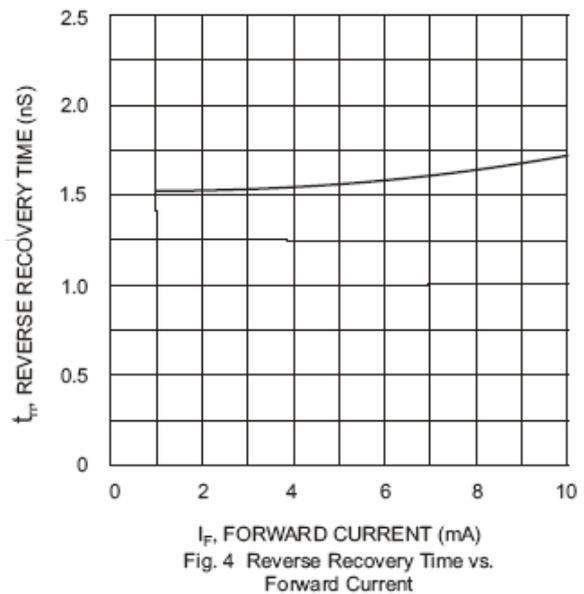


Fig. 4 Reverse Recovery Time vs. Forward Current

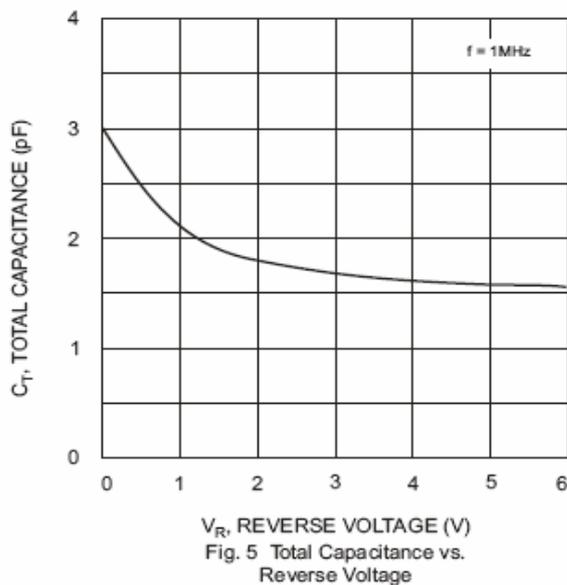


Fig. 5 Total Capacitance vs. Reverse Voltage