

Surface Mount Schottky Barrier Diode

(Pb) Lead(Pb)-Free

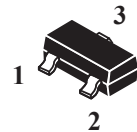
Features:

- * Low current rectification and high speed switching.
- * Small surface mount type.
- * Up to 500mA current capability.
- * Low forward voltage drop .
- * Silicon epitaxial planar chip, metal silicon junction.
- * Lead-free parts meet environmental standards of MIL-STD-19500 /228

Mechanical Data:

- * Epoxy:UL94-V0 rated flame retardant
- * Case :Molded plastic, SOT-23
- * Terminals : Solder plated, solderable per MIL-STD-750, Method 2026
- * Mounting Position : Any
- * Weight : Approximated 0.008 gram

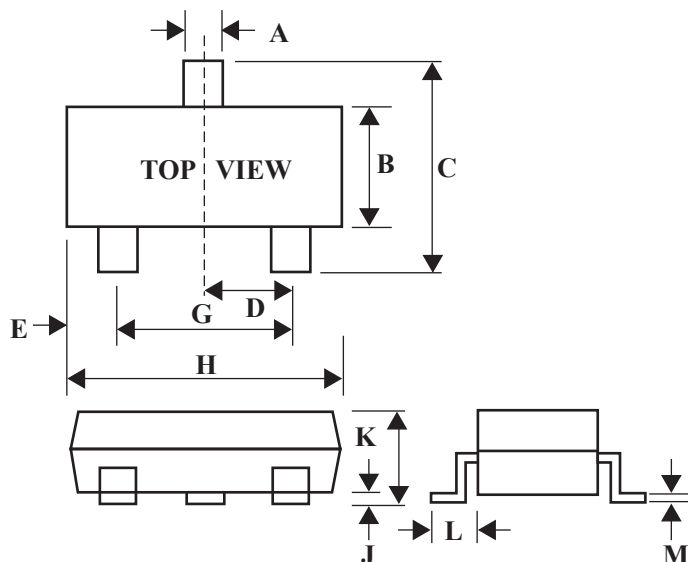
**SCHOTTKY BARRIER
RECTIFIERS
1.0AMPERES
25-45VOLTS**



SOT-23

SOT-23 Outline Dimensions

Unit:mm



Dim	Min	Max
A	0.37	0.50
B	1.20	1.40
C	2.10	2.64
D	0.89	1.09
E	0.46	1.00
G	1.78	2.04
H	2.80	3.04
J	0.01	0.13
K	0.89	1.11
L	0.35	0.69
M	0.09	0.18

Maximum Ratings and Electrical Characteristics



Rating 25°C Ambient Temperature Unless Otherwise Specified.

Single Phase Half Wave, 60Hz , Resistive or Inductive Load.

For Capacitive Load, Derate Current by 20%.

Type Number	Symbol	WSD490	WSD491	Unit
Maximum Recurrent Peak Reverse Voltage	V_{RM}	45	25	V
Continuous reverse voltage	V_R	45	25	V
Mean rectifying current	I_o	1.0		A
Forward surge current, 8.3 ms Single Half Sine-Wave Superimposed on Rated Load (JEDEC Method)	I_{FSM}	3.0		A
Maximum Instantaneous Forward Voltage at 1.0A	V_F	0.50	0.45	V
Maximum DC Reverse Current $T_a=25^\circ\text{C}$	I_R	0.2		mA
At Rated DC Blocking Voltage $T_a=100^\circ\text{C}$		4.0		mA
Operating Temperature Range	T_j	-50 to + 125		°C
Storage Temperature Range	T_{STG}	-50 to + 125		°C

Device Marking

Item	Marking	Equivalent Circuit diagram
WSD491	10T	
WSD490	10F	

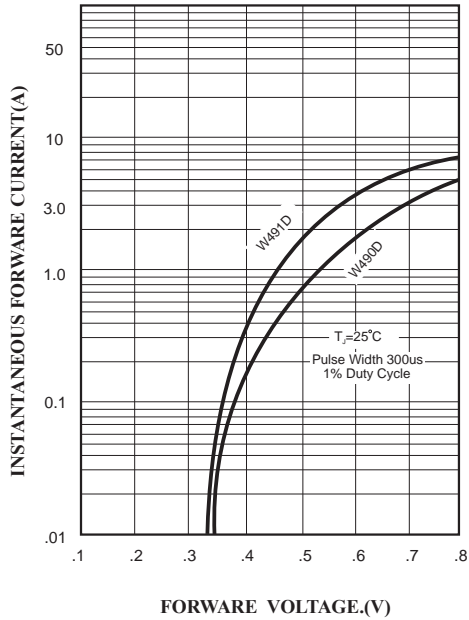


FIG.1 Typical Forward Characteristics

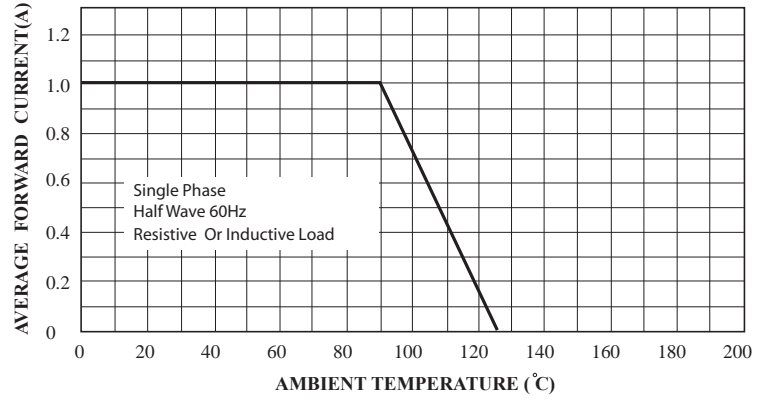


FIG.2 Typical Forward Current Derating Curve

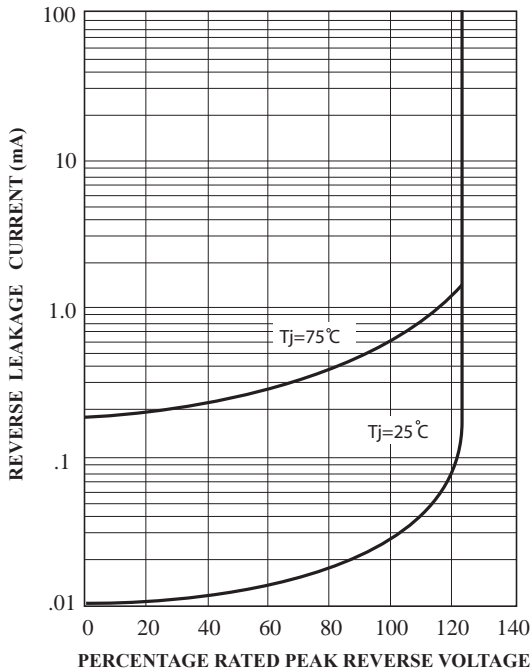


FIG.3 Typical Reverse Characteristics

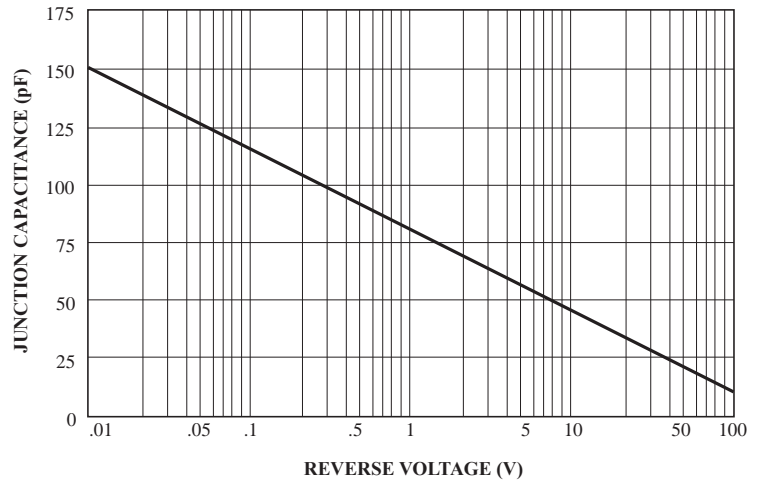


FIG.4 Typical Junction Capacitance