

Features

- $I_{F(AV)}$ 1A
- V_{RRM} 50V-1000V
- High surge current capability
- Polarity: Color band denotes cathode



SOD-123FL top view



Schematic diagram

Applications

- Rectifier

Marking

- DSR1A~DSR1K : A1~A6
- DSR1M : S1M



Halogen-Free

Maximum Ratings($T_a=25^\circ\text{C}$ unless otherwise noted)

Symbol	Parameter	Test Conditions	DSR1A	DSR1B	DSR1D	DSR1G	DSR1J	DSR1K	DSR1M
V_{RRM}	Maximum Repetitive Peak Reverse Voltage		50	100	200	400	600	800	1000
V_{RMS}	Maximum RMS voltage		35	70	140	280	420	560	700
V_{DC}	Maximum DC Blocking Voltage		50	100	200	400	600	800	1000
$I_{F(AV)}$	Average Forward Current 60Hz Half-sine wave, Resistance load	60Hz Half-sine wave, Resistance load	1						
I_{FSM}	Surge(Non-repetitive)Forward Current 60Hz Half-sine wave, 1 cycle, $T_a=25^\circ\text{C}$	60Hz Half-sine wave, 1 cycle, $T_a=25^\circ\text{C}$	30						
T_J	Junction Temperature		-55~+150						
T_{stg}	Storage Temperature		-55~+150						

ELECTRICAL CHARACTERISTICS($T_a=25^\circ\text{C}$ unless otherwise specified)

Symbol	Parameter	Test Conditions	DSR1A	DSR1B	DSR1D	DSR1G	DSR1J	DSR1K	DSR1M	Unit
V _F	Maximum Peak Forward Voltage	I _F = 1.0A	1							V
I _{RRM1}	Maximun Peak Reverse Current	V _{RM} =V _{RRM} Ta = 25 °C	5							μA
I _{RRM2}	Maximun Peak Reverse Current	V _{RM} =V _{RRM} Ta = 100 °C	50							
C _J	Typical Junction Capacitance	Measured at 1MHz and applied reverse voltage of 4.0V D.C.	6							pF
R _{ΘJ-A}	Typical Thermal Resistance	Between junction and ambient	72							°C/W
R _{ΘJ-L}	Typical Thermal Resistance	Between junction and terminal	11							°C/W

Typical Operating Characteristics

Fig.1 Forward Current Derating Curve

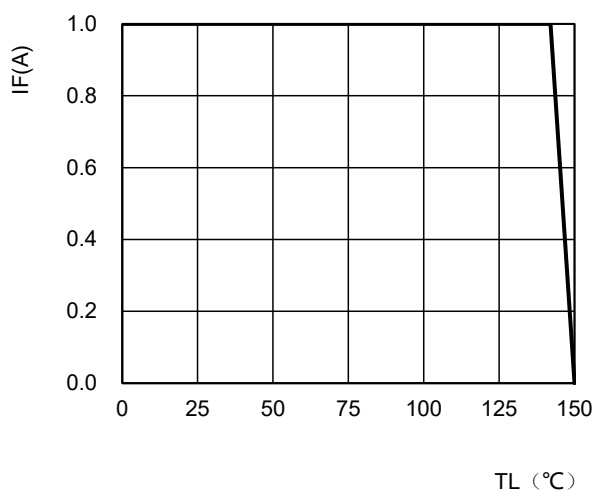


Fig.2 Maximum Non-Repetitive Forward Surge Current

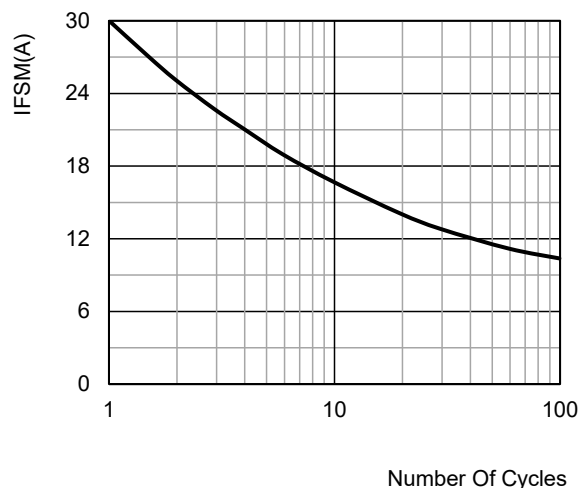


Fig.3 Typical Forward Characteristics

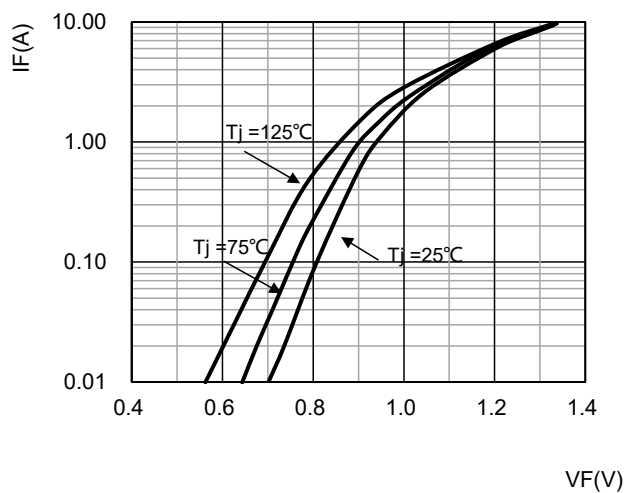
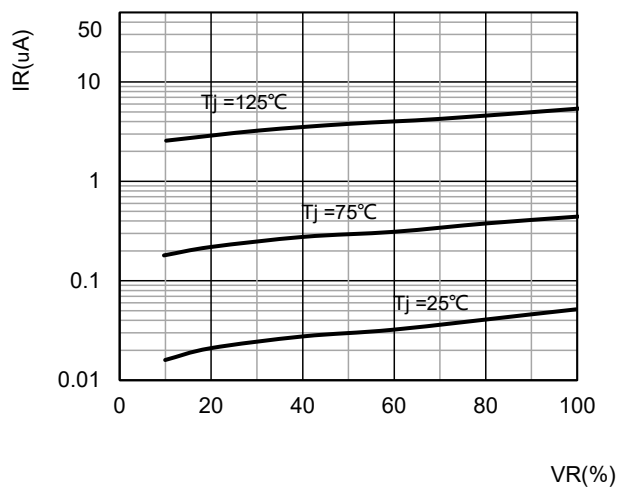
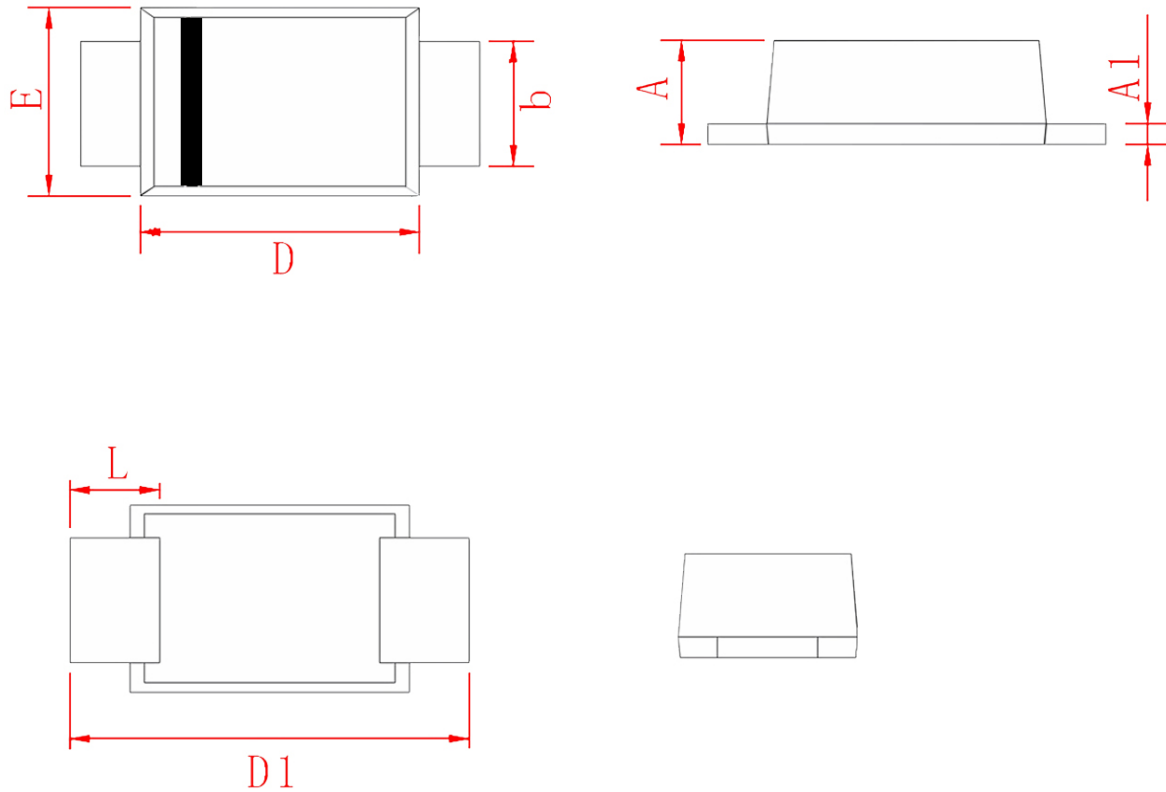


Fig.4 Typical Reverse Characteristics



Ordering Information (Example)

Type	Package	Marking	Minimum Package(pcs)	Inner Box Quantity(pcs)	Outer Carton Quantity(pcs)	Delivery Mode
DSR1A	SOD-123FL	A1	3,000	45,000	180,000	7"reel
DSR1B		A2				
DSR1D		A3				
DSR1G		A4				
DSR1J		A5				
DSR1K		A6				
DSR1M		S1M				

SOD-123FL Package information


Symbol	Dimensions in Millimeters(mm)		Dimensions In Inches	
	Min	Max	Min	Max
A	1.200	1.400	0.047	0.055
A1	0.120	0.250	0.005	0.010
b	0.850	1.150	0.033	0.045
D	2.650	2.950	0.104	0.116
D1	3.550	3.850	0.140	0.152
E	1.700	1.900	0.067	0.075
L	0.500	0.900	0.020	0.035