

Features

- I_O 2A
- V_{RRM} 50V-1000V
- Low forward voltage drop
- High surge current capability
- Glass passivated chip junction



SOD-123FL top view



Schematic diagram

Applications

- Rectifier

Marking

- S2X
X : A To M



Halogen-Free

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

Symbol	Parameter	Conditions	S2AL	S2BL	S2DL	S2GL	S2JL	S2KL	S2ML	Unit
V_{RRM}	Repetitive Peak Reverse Voltage		50	100	200	400	600	800	1000	V
V_{RMS}	Maximum RMS voltage		35	70	140	280	420	560	700	V
V_{DC}	Maximum DC Blocking Voltage		50	100	200	400	600	800	1000	V
$I_{F(AV)}$	Average Forward Current	60Hz Half-sine wave, Resistance load	2							A
I_{FSM}	Surge(Non-repetitive)Forward Current	60Hz Half-sine wave, 1 cycle, $T_a=25^\circ\text{C}$	50							A
T_J	Junction Temperature		-55~+150							$^\circ\text{C}$
T_{stg}	Storage Temperature		-55~+150							$^\circ\text{C}$

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

Symbol	Parameter	Test Condition	Typ	Max	Unit
V_{FM}	Peak Forward Voltage	$I_{FM}=2.0\text{A}$	--	1.1	V
I_{RRM1}	Peak Reverse Current	$V_{RM}=V_{RRM}$, $T_a = 25^\circ\text{C}$	--	5	μA
I_{RRM2}		$V_{RM}=V_{RRM}$, $T_a = 125^\circ\text{C}$	--	50	
T_{rr}	Reverse Recovery Time	$I_F=0.5\text{A}$, $I_R=1\text{A}$, $I_{RR}=0.25\text{A}$	2	--	us
C_j	Typical Junction Capacitance	Measured at 1MHz and applied reverse voltage of 4.0V D.C.	8	--	pF
$R_{\Theta J-A}$	Typical Thermal Resistance	Between junction and ambient	62	--	$^\circ\text{C/W}$
$R_{\Theta J-C}$		Between junction and case	4	--	
$R_{\Theta J-L}$		Between junction and lead	11	--	

Typical Operating Characteristics

Fig.1 Forward Current Derating Curve

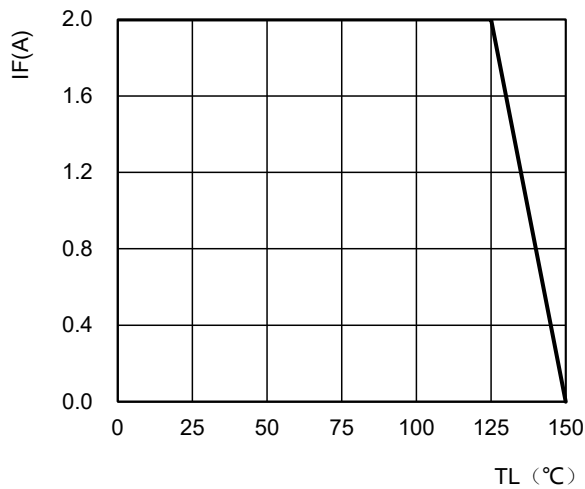


Fig.2 Maximum Non-Repetitive Forward Surge Current

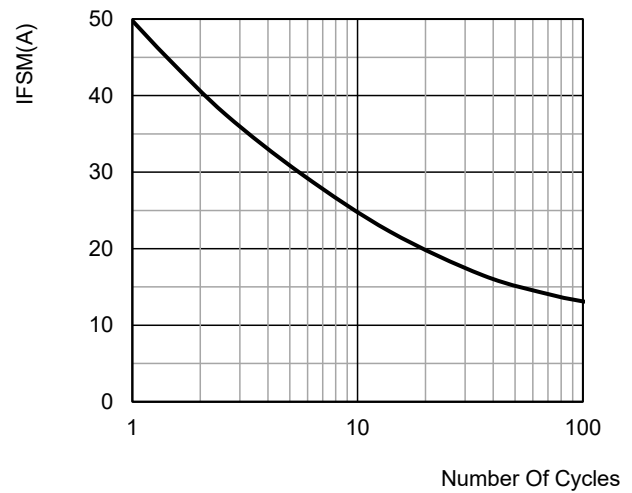


Fig.3 Typical Forward Characteristics

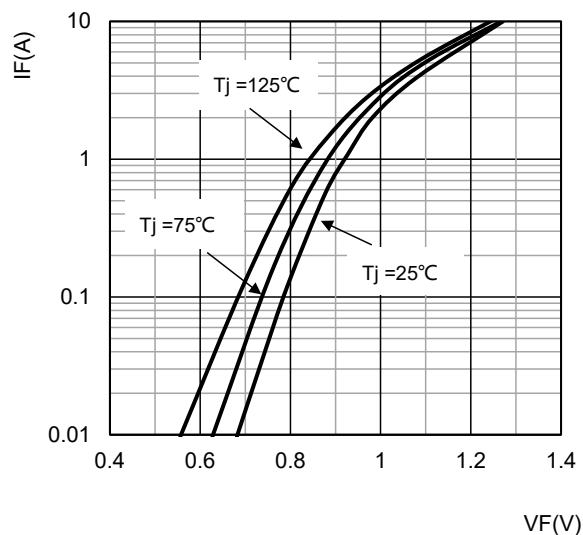
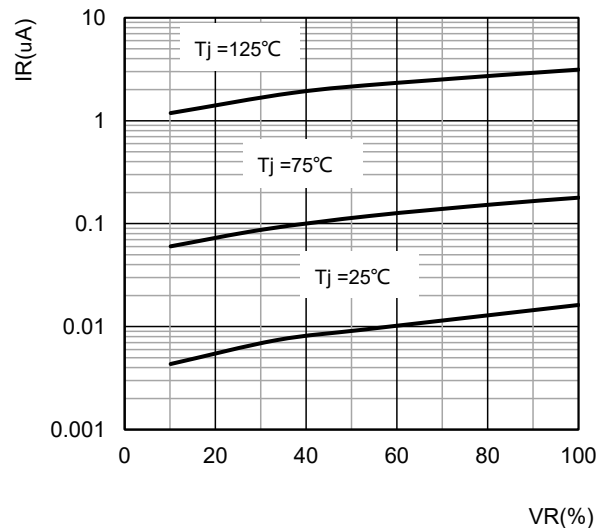


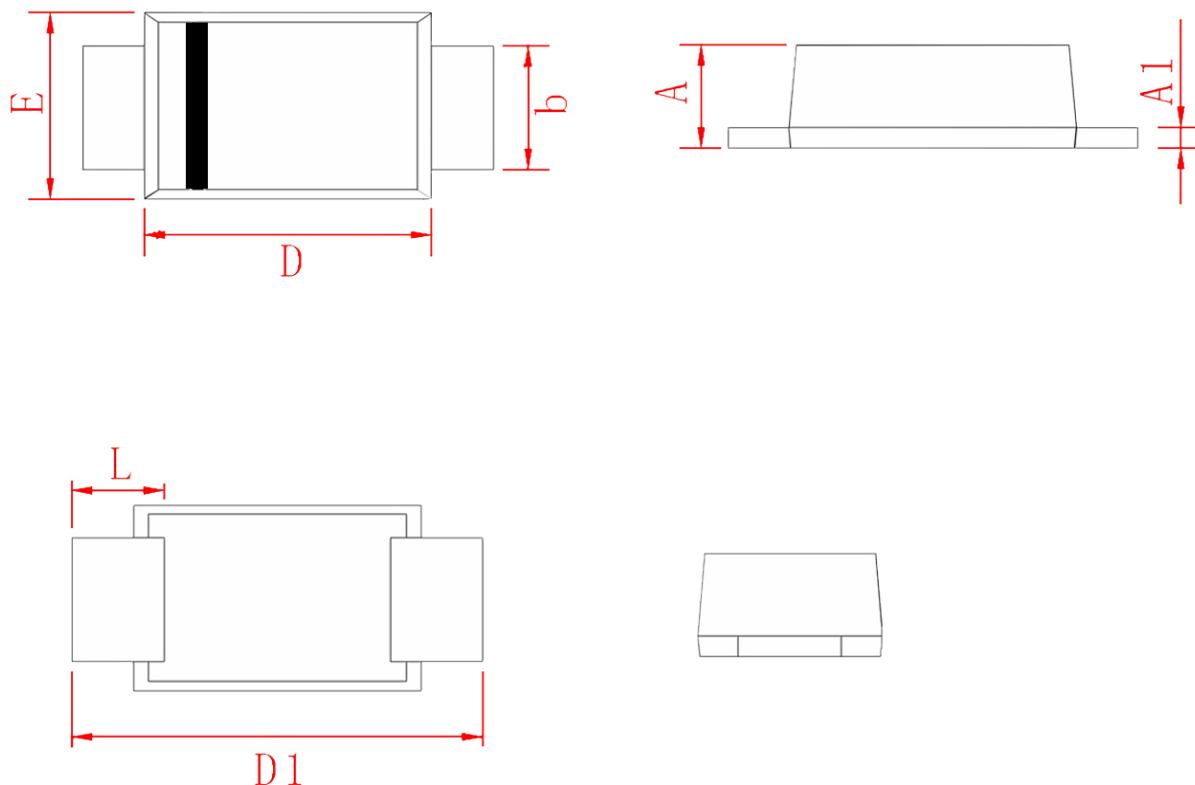
Fig.4 Typical Reverse Characteristics



Ordering Information (Example)

Type	Package	Marking	Minimum Package(pcs)	Inner Box Quantity(pcs)	Outer Carton Quantity(pcs)	Delivery Mode
S2AL	SOD-123FL	S2A	3,000	45,000	180,000	7"reel
S2BL		S2B				
S2DL		S2D				
S2GL		S2G				
S2JL		S2J				
S2KL		S2K				
S2ML		S2M				

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