

**Features**

- $I_{F(AV)}$  2A
- $V_{RRM}$  20V-200V
- High surge current capability
- Polarity: Color band denotes cathode



SOD-123FL top view

Schematic diagram

**Applications**

- Rectifier

**Marking**

- S2X
- X: From 2 To 20


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

Symbol	Item	Test Conditions	DSS2										Unit
			2	3	4	5	6	8	10	15	20		
$V_{RRM}$	Repetitive Peak Reverse Voltage		20	30	40	50	60	80	100	150	200	V	
$V_{RMS}$	Maximum RMS voltage		14	21	28	35	42	56	70	105	140	V	
$I_{F(AV)}$	Average Forward Current	60Hz Half-sine wave Resistance load	2.0									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~+125				-55~+150					$^\circ\text{C}$	
$T_{stg}$	Operating and Storage Temperature Range		-55~+150										$^\circ\text{C}$

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

Symbol	Item	Test Condition	DSS2										Unit
			2	3	4	5	6	8	10	15	20		
$V_F$	Peak Forward Voltage	$I_F=2.0A$	0.55		0.7		0.85		0.95		V		
$I_{RRM1}$	Peak Reverse Current	$V_{RM}=V_{RRM}$ $T_a=25^\circ\text{C}$	0.5				0.1				mA		
$I_{RRM2}$		$V_{RM}=V_{RRM}$ $T_a=100^\circ\text{C}$	10				5.0						
$R_{\theta J-A}$	Thermal Resistance(Typical)	Between junction and ambient	54										$^\circ\text{C}/\text{W}$
$R_{\theta J-L}$		Between junction and lead	10										
$C_j$	Junction Capacitance (Typical)	Measured at 1MHZ and Applied Revers Voltage of 4.0 V.D.C	114		92		53		40		pF		

**Ordering Information (Example)**

Type	Package	Marking	Minimum Package(pcs)	Inner Box Quantity(pcs)	Outer Carton Quantity(pcs)	Delivery Mode
DSS22	SOD-123FL	S22	3,000	45,000	180,000	7"reel
DSS23		S23				
DSS24		S24				
DSS25		S25				
DSS26		S26				
DSS28		S28				
DSS210		S210				
DSS215		S215				
DSS220		S220				

Typical Characteristics

Fig.1 Forward Current Derating Curve

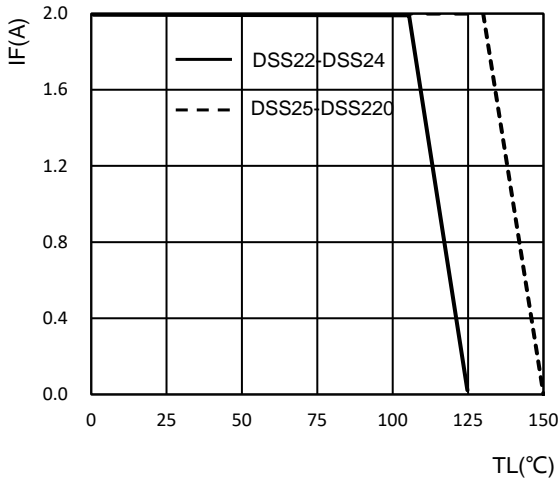
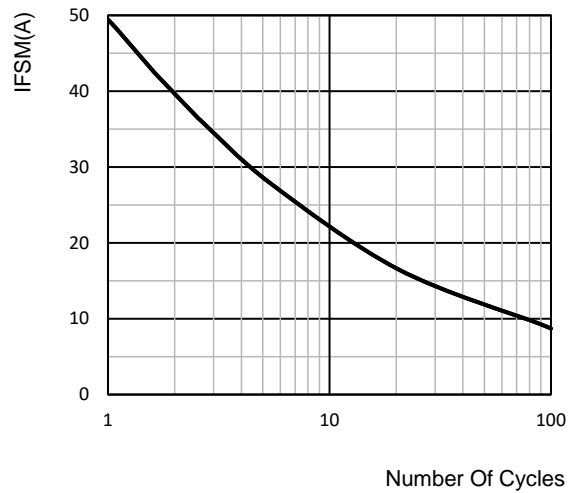
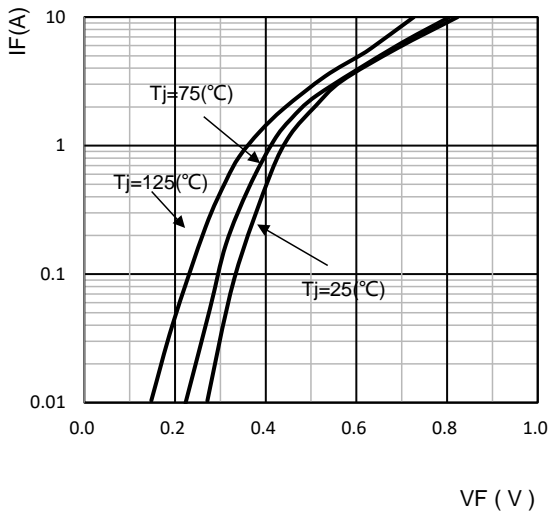


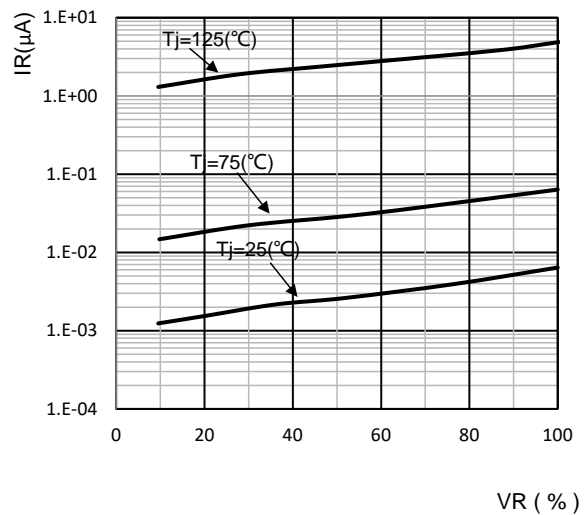
Fig.2 Maximum Non-Repetitive Forward Surge Current



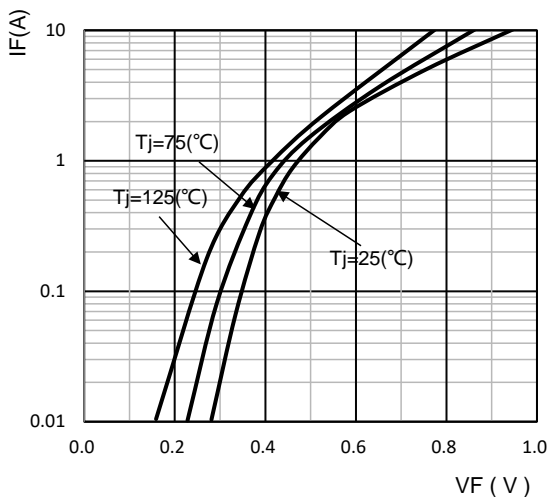
**DSS22-DSS24**  
Fig.3 Typical Forward Characteristics



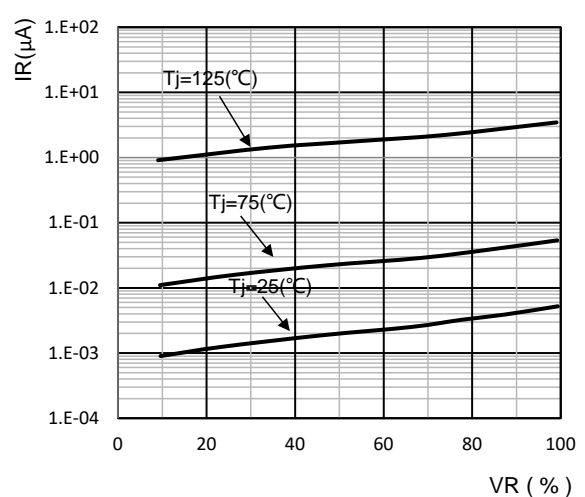
**DSS22-DSS24**  
Fig.4 Typical Reverse Characteristics



**DSS25-DSS26**  
Fig.5 Typical Forward Characteristics

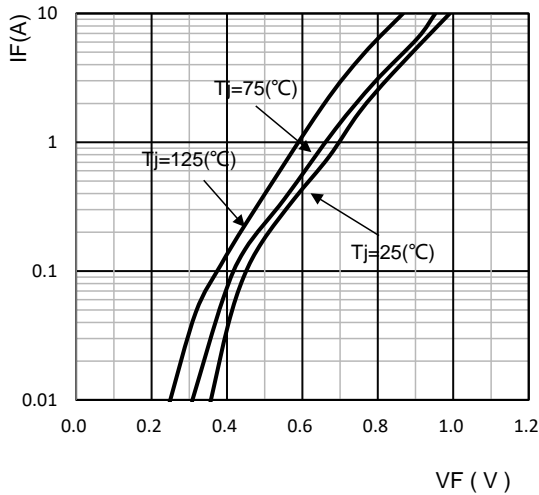


**DSS25-DSS26**  
Fig.6 Typical Reverse Characteristics



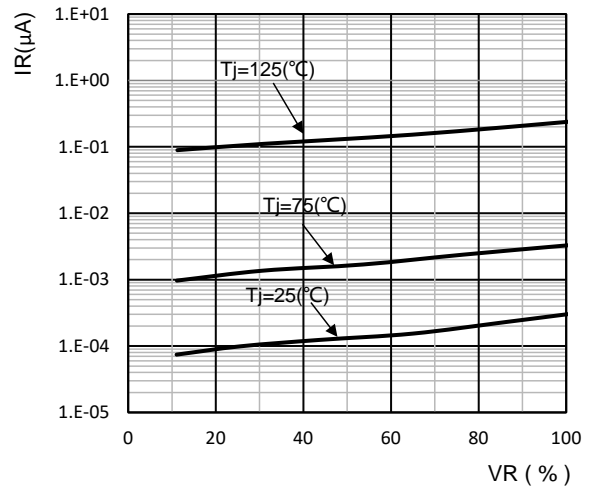
**DSS28-DSS210**

**Fig.7 Typical Forward Characteristics**



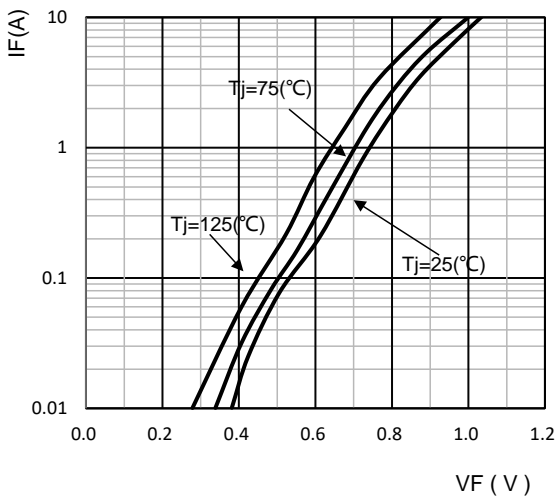
**DSS28-DSS210**

**Fig.8 Typical Reverse Characteristics**



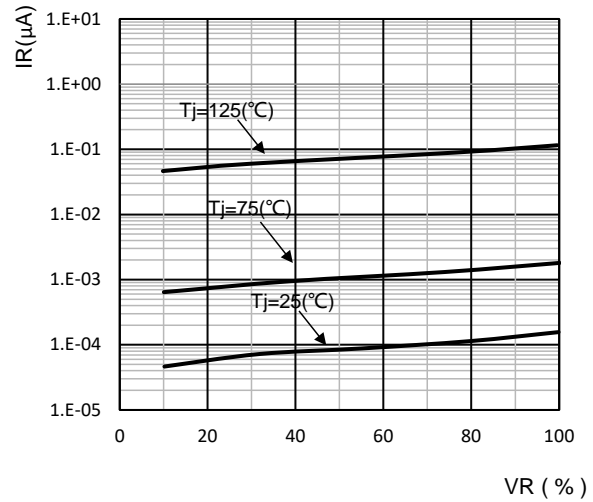
**DSS215**

**Fig.9 Typical Forward Characteristics**



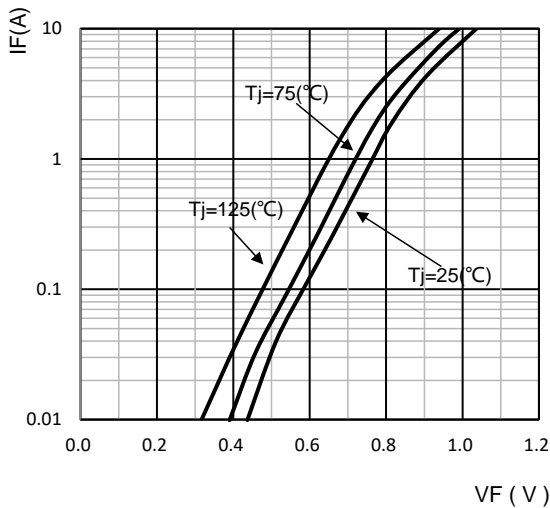
**DSS215**

**Fig.10 Typical Reverse Characteristics**



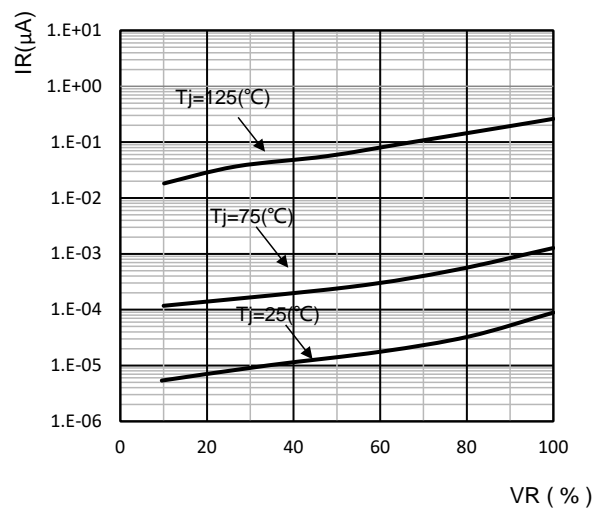
**DSS220**

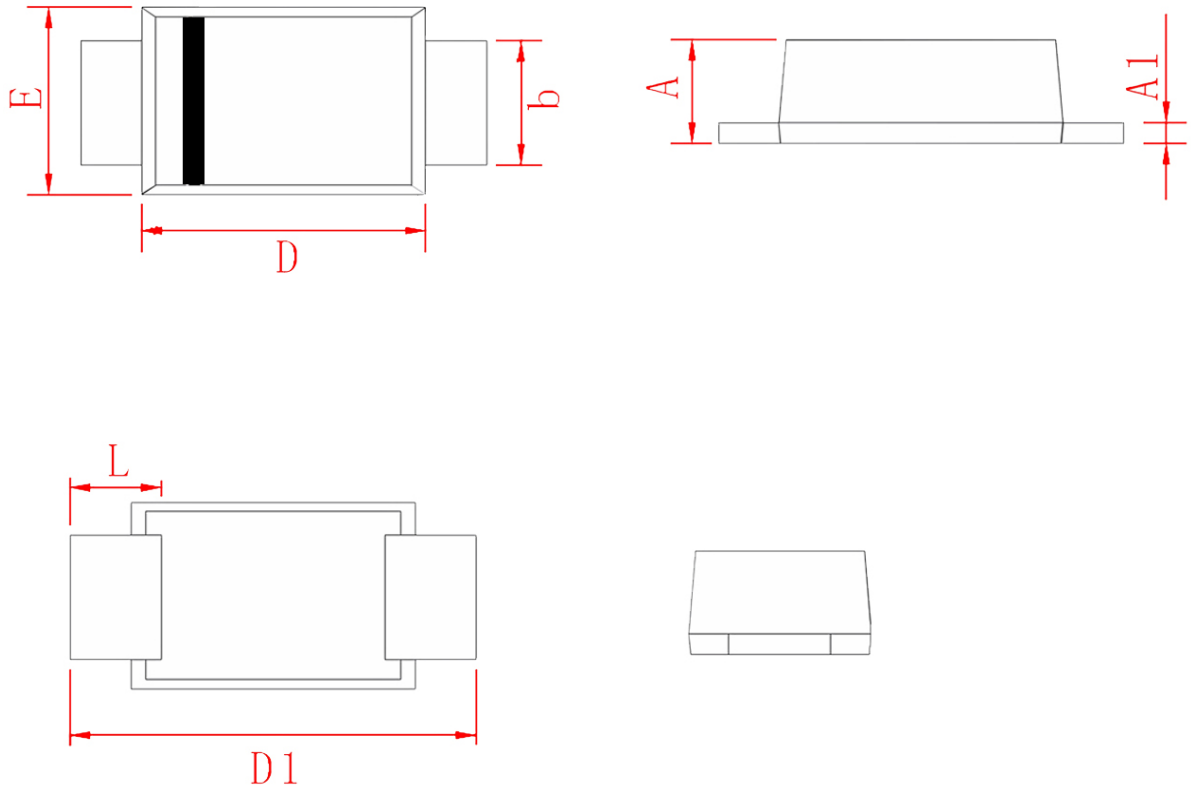
**Fig.11 Typical Forward Characteristics**



**DSS220**

**Fig.12 Typical Reverse Characteristics**



**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