

Features

- $I_{F(AV)}$ 5A
- V_{RRM} 100V
- High surge current capability
- Polarity: Color band denotes cathode
- Low peak forward voltage



SMB top view



Schematic diagram

Applications

- Rectifier

Marking

- SS510L:SS510L



Halogen-Free

Limiting Values(Absolute Maximum Rating)

Symbol	Item	Test Conditions	SS510L	Unit
V_{RRM}	Repetitive Peak Reverse Voltage		100	V
V_{RMS}	Maximum RMS voltage		70	V
$I_{F(AV)}$	Average Forward Current	60Hz Half-sine wave Resistance load	5.0	A
I_{FSM}	Surge(Non-repetitive)Forward Current	60Hz Half-sine wave, 1 cycle, $T_a=25^{\circ}C$	120	A
T_j	Junction Temperature		-55 ~ +150	$^{\circ}C$
T_{stg}	Operating and Storage Temperature Range		-55 ~ +150	$^{\circ}C$

Electrical Characteristics (T=25°C Unless otherwise specified)

Symbol	Item	Test Condition		SS510L	Unit
V_F	Peak Forward Voltage	$I_F=5.0A$	$T_a=25^{\circ}C$	0.70	V
I_{RRM1}	Peak Reverse Current	$V_{RM}=V_{RRM}$	$T_a=25^{\circ}C$	0.03	mA
I_{RRM2}		$V_{RM}=V_{RRM}$	$T_a=100^{\circ}C$	20	
$R_{\theta J-A}$	Thermal Resistance	Between junction and ambient		55	$^{\circ}C/W$
$R_{\theta J-L}$		Between junction and lead		13	
C_j	Juction Capacitance (Typical)	Measured at 1MHZ and Applied Rever Voltage of 4.0 V.D.C		280	pF

Ordering Information (Example)

Type	Package	Marking	Minimum Package(pcs)	Inner Box Quantity(pcs)	Outer Carton Quantity(pcs)	Delivery Mode
SS510L	SMB	SS510L	2,000	10,000	100,000	7"reel

Typical Characteristics

Fig.1 Forward Current Derating Curve

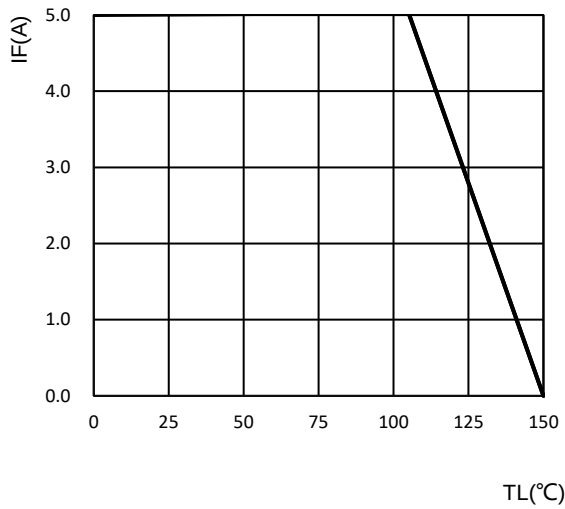


Fig.2 Maximum Non-Repetitive Forward Surge Current

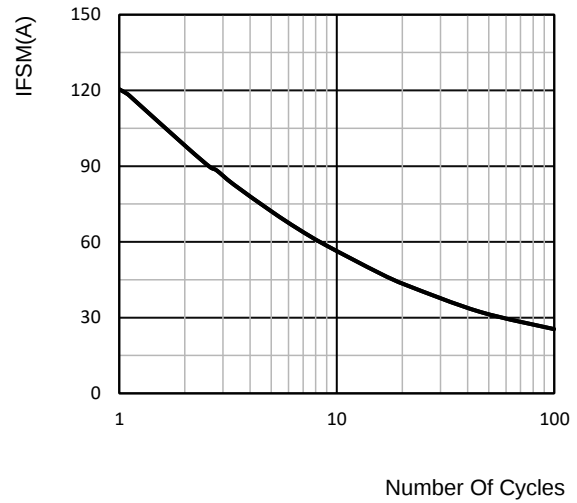


Fig.3 Typical Forward Characteristics

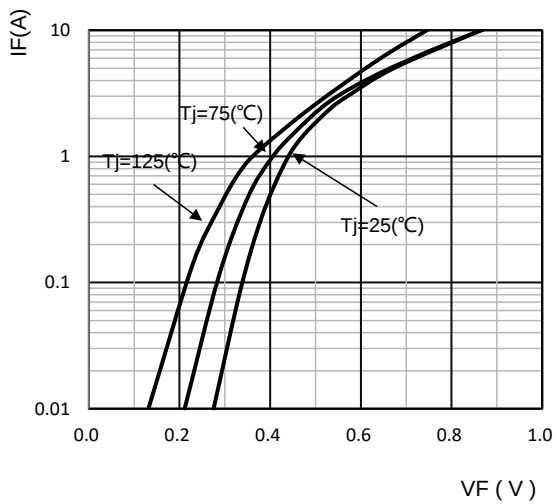
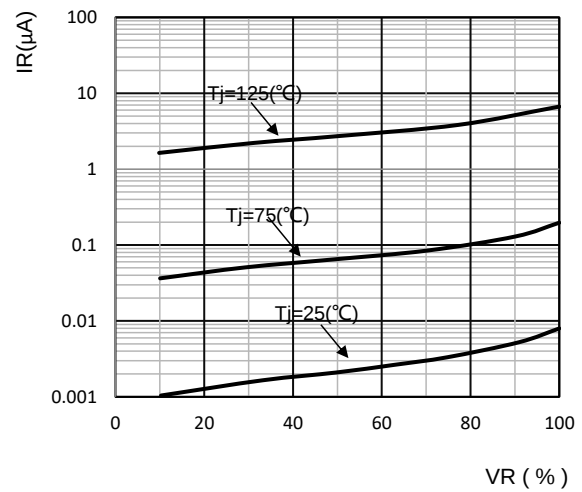
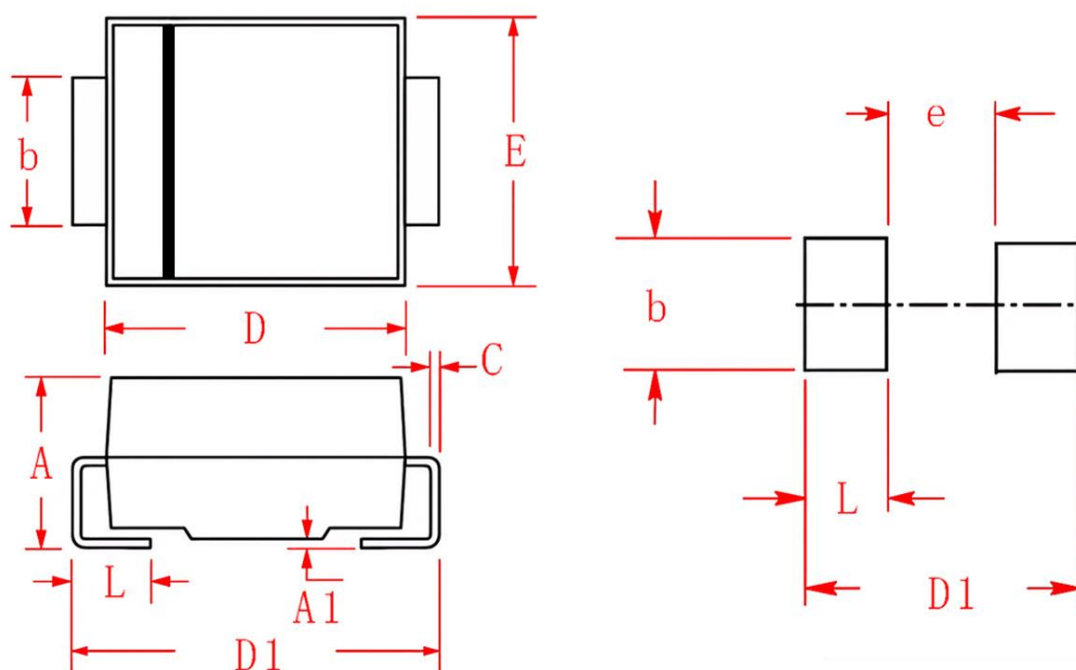


Fig.4 Typical Reverse Characteristics



SMB Package information

SMB (DO-214AA)



Symbol	Dimensions in Millimeters(mm)		Dimensions In Inches	
	Min	Max	Min	Max
A	2.130	2.440	0.084	0.096
A1	0.050	0.200	0.002	0.008
b	1.900	2.200	0.075	0.087
C	0.152	0.305	0.006	0.012
D	4.060	4.700	0.160	0.185
D1	5.080	5.590	0.200	0.220
E	3.300	3.940	0.130	0.155
e	-	2.159	-	0.085
L	0.800	1.500	0.031	0.059