S3A THRU S3M
General Purpose Rectifier Diodes

Features

- $I_{F(AV)}$ 3A
- V_{RRM} 50V-1000V
- High surge current capability
- Polarity: Color band denotes cathode

Applications

- Rectifier

Marking

- S3X

X : From A To M

SMB top view

Schematic diagram

Pb-Free RoHS Halogen-Free

Limiting Values(Absolute Maximum Rating)

Symbol	Parameter	Test Conditions	S3							Unit
			A	B	D	G	J	K	M	
V_{RRM}	Maximum 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
$I_{F(AV)}$	Average Forward Current	60Hz Half-sine wave, Resistance load	3							A
I_{FSM}	Surge(Non-repetitive)Forward Current	60Hz Half-sine wave, 1 cycle, Ta=25℃	100							A
T_j, T_{stg}	Operating and Storage Temperature Range		-55~+150							℃

Electrical Characteristics (T=25℃ Unless otherwise specified)

Item	Symbol	Test Condition	S3							Unit
			A	B	D	G	J	K	M	
Peak Forward Voltage	V_F	I_F=3.0A	1.1							V
Peak Reverse Current	I_{RRM1}	$V_{RM}=V_{RRM}$ Ta =25℃	5							μA
	I_{RRM2}	$V_{RM}=V_{RRM}$ Ta =125℃	125							
Thermal Resistance (Typical)	$R_{\theta J-A}$	Between junction and ambient	65							℃/W
	$R_{\theta J-L}$	Between junction and terminal	13							
Juction Capacitance (Typical)	Cj	Measured at 1MHZ and Applied Rever Voltage of 4.0 V.D.C	23							pF

Typical Characteristics

Fig.1 Forward Current Derating Curve

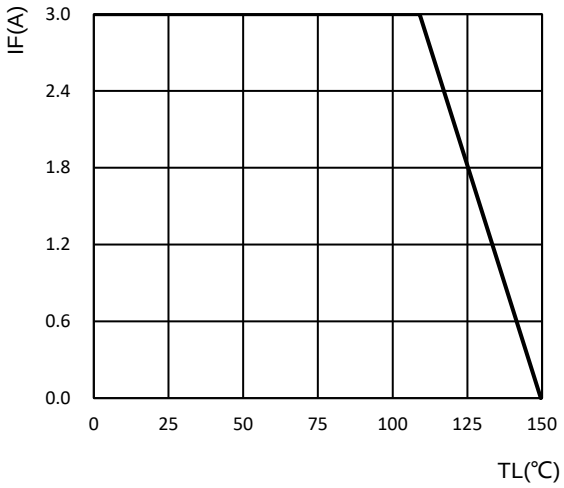


Fig.2 Maximum Non-Repetitive Forward Surge Current

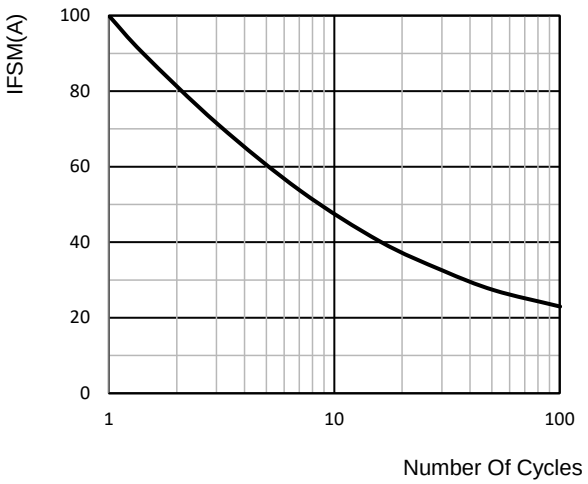


Fig.3 Typical Forward Characteristics

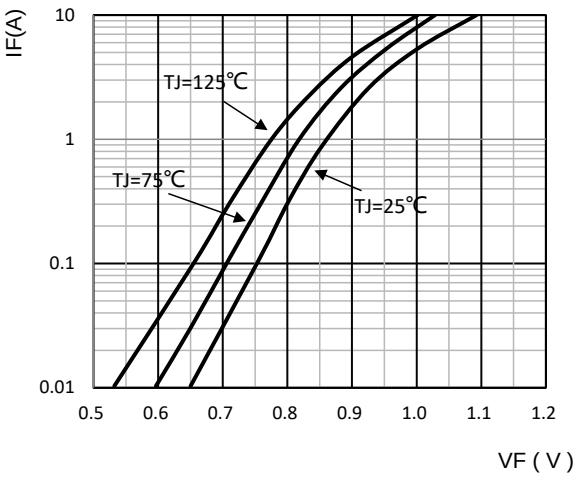
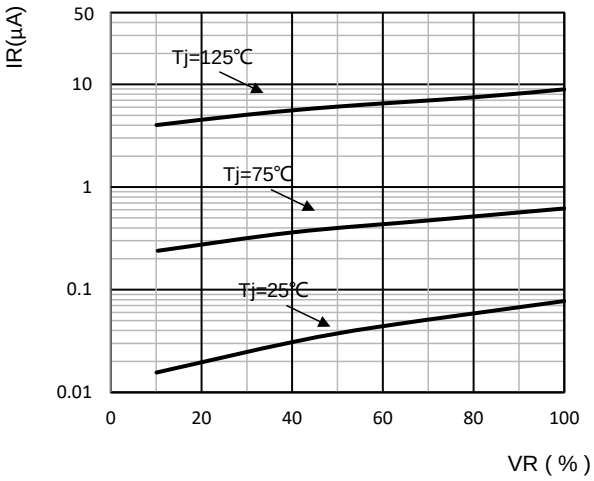


Fig.4 Typical Reverse Characteristics

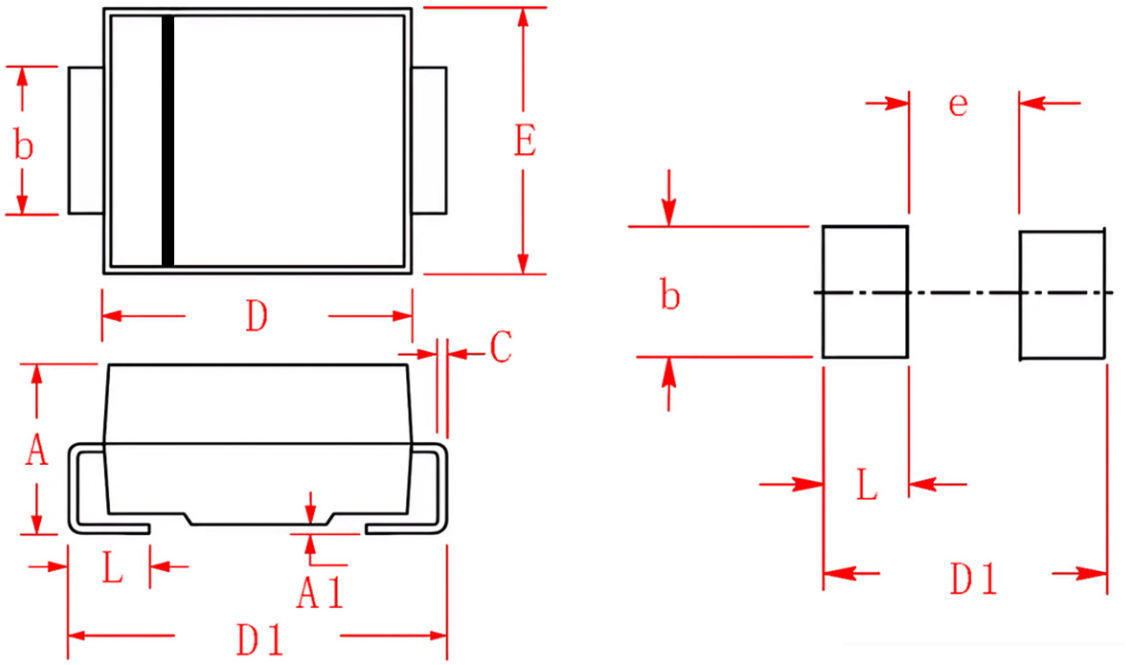


Ordering Information (Example)

Type	Package	Marking	Minimum Package(pcs)	Inner Box Quantity(pcs)	Outer Carton Quantity(pcs)	Delivery Mode
S3A	SMB	A	2,000	10,000	100,000	7"reel
S3B		B				
S3D		D				
S3G		G				
S3J		J				
S3K		K				
S3M		M				

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