

Features

- Low profile package
- Ideal for automated placement
- Glass passivated pallet chip junction
- Super fast reverse recovery time
- Low switching losses, high efficiency
- High forward surge capability

Reverse Voltage

50-600 V

Forward Current

3 Ampere

DO-214AA(SMB)

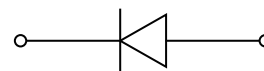
Applications

For use in high frequency rectification and freewheeling application in switching mode converters and inverters for consumer, computer, automotive, and telecommunication.



Mechanical Data

- Case: DO-214AA(SMB)
Molding compound meets UL 94V-0 flammability rating, RoHS-compliant, halogen-free
- Terminals: Solder plated, solderable per MIL-STD-750, Method 2026
- Polarity: Cathode line denotes the cathode end



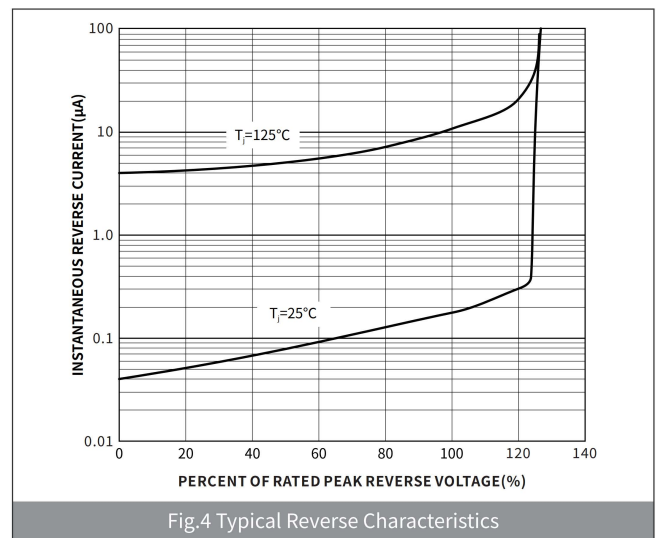
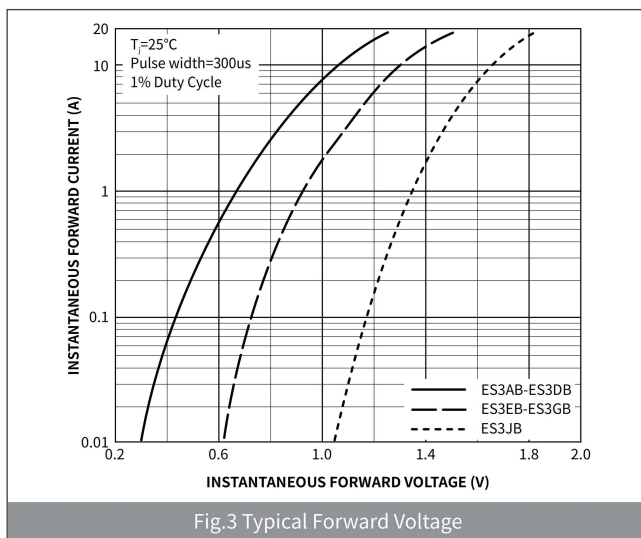
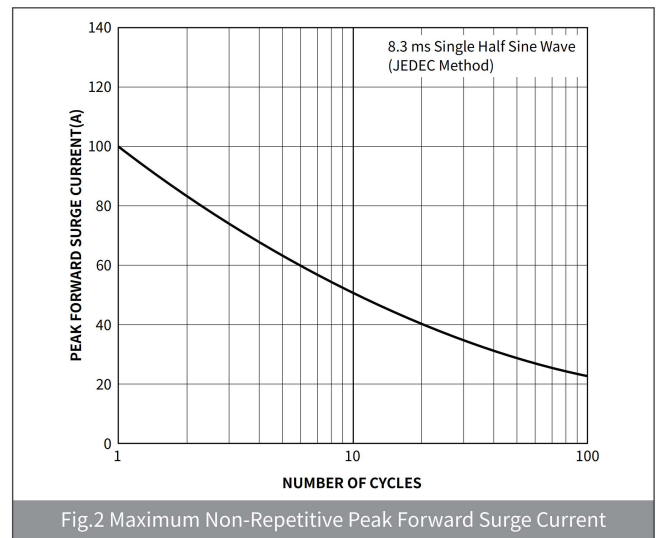
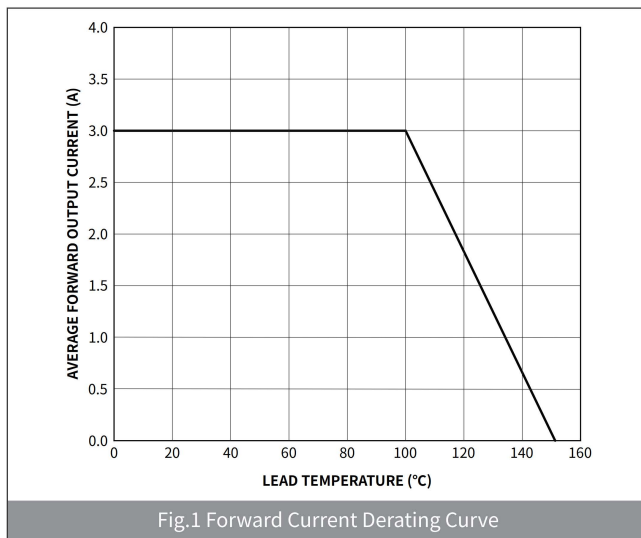
Maximum Ratings (Ta=25°C Unless otherwise specified)

PARAMETER	SYMBOL	UNIT	ES3AB	ES3BB	ES3CB	ES3DB	ES3EB	ES3GB	ES3JB
Device marking code			ES3AB	ES3BB	ES3CB	ES3DB	ES3EB	ES3GB	ES3JB
Maximum Repetitive Peak Reverse Voltage	V_{RRM}	V	50	100	150	200	300	400	600
Maximum RMS Voltage	V_{RMS}	V	35	70	105	140	210	280	420
Maximum DC blocking Voltage	V_{DC}	V	50	100	150	200	300	400	600
Maximum Average Forward Rectified Current @ 60Hz sinewave, Resistance load, TL (Fig.1)	$I_{F(AV)}$	A	3.0						
Non-repetitive Peak Forward Surge Current @ t=8.3ms Half-sine wave	I_{FSM}	A	100						
Storage temperature	T_{stg}	°C	-55 ~+150						
Junction temperature	T_j	°C	-55 ~+150						
Typical Thermal Resistance	$R_{\theta J-A}$	°C /W	60						
	$R_{\theta J-L}$	°C /W	25						

Electrical Characteristics (Ta=25°C Unless otherwise noted)

PARAMETER	TEST CONDITIONS	SYMBOL	UNIT	ES3AB	ES3BB	ES3CB	ES3DB	ES3EB	ES3GB	ES3JB
Maximum instantaneous forward voltage	I _F =3.0A	V _F	V	1.0				1.3		1.7
Maximum reverse recovery time	I _F =0.5A,I _R =1.0A,I _{rr} =0.25A	T _{rr}	ns	35						
Maximum DC reverse currentat rated DC blocking voltage	V _R =V _{DC} , T _A =25°C	I _{R1}	μA	2.0						
	V _R =V _{DC} , T _A =125°C	I _{R2}		200						
Typical junction capacitance	4.0V DC,1MHz	C _J	pF	65						

Ratings And Characteristics Curves (Ta=25°C Unless otherwise specified)

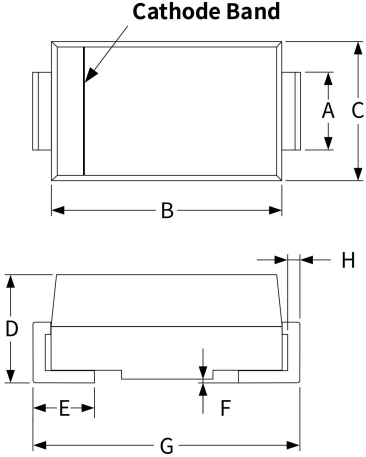


Ordering Information

PACKAGE	PACKAGE CODE	UNIT WEIGHT(g)	REEL(pcs)	BOX(pcs)	CARTON(pcs)	DELIVERY MODE
SMB	R3	0.098	3000	6000	48000	13"

Package Outline Dimensions (SMB/DO-214AA)

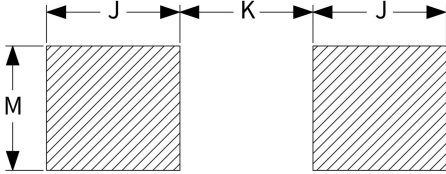
Symbol	Dimensions			
	Millimeters		Inches	
	Min.	Max.	Min.	Max.
A	1.85	2.21	0.073	0.087
B	4.25	4.85	0.167	0.191
C	3.30	3.94	0.130	0.155
D	2.15	2.65	0.085	0.104
E	0.75	1.52	0.030	0.060
F	-	0.203	-	0.008
G	5.08	5.59	0.200	0.220
H	0.15	0.31	0.006	0.012



The diagram shows two views of the SMB package. The top view is a rectangle with dimensions A (height of the cathode band), B (width), and C (total height). A label 'Cathode Band' points to the top edge. The bottom view is a side profile showing dimensions D (total height), E (height of the main body), F (height of the cathode band), G (width), and H (height of the cathode band).

Suggested Pad Layout

Symbol	Dimensions			
	Millimeters		Inches	
	Min.	Max.	Min.	Max.
M	2.26	-	0.089	-
J	2.10	-	0.085	-
K	-	2.74	-	0.107



The diagram shows a suggested pad layout for the SMB package. It consists of two rectangular pads. The left pad has a width of J and a height of M. The right pad has a width of J and a height of M. The distance between the two pads is K.