

Features

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

Applications

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

Mechanical Data

- Case: SMBF
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)

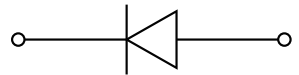
PARAMETER	SYMBOL	UNIT	ES5ABF	ES5BBF	ES5CBF	ES5DBF	ES5EBF	ES5GBF	ES5JBF
Maximum repetitive peak reverse voltage	V_{RRM}	V	50	100	150	200	300	400	600
Maximum RMS Voltage	V_{RMS}	V	35	70	105	140	210	280	420
Maximum DC blocking Voltage	V_{DC}	V	50	100	150	200	300	400	600
Maximum Average Forward Rectified Current @60Hz sinewave, Resistance load, TL (Fig.1)	$I_{F(AV)}$	A	5.0						
Non-repetitive Peak Forward Surge Current @ t=8.3ms Half-sine wave	I_{FSM}	A	150						
Storage temperature	T_{stg}	°C	-55 ~ +150						
Junction temperature	T_j	°C	-55 ~ +150						
Typical Thermal Resistance	$R_{\theta J-A}^{(1)}$	°C /W	78						
	$R_{\theta J-L}^{(1)}$	°C /W	45						

Note : (1) Thermal resistance from junction to ambient and from junction to lead mounted on P.C.B. with 0.2" × 0.2" (5.0mm x 5.0mm) copper pad areas

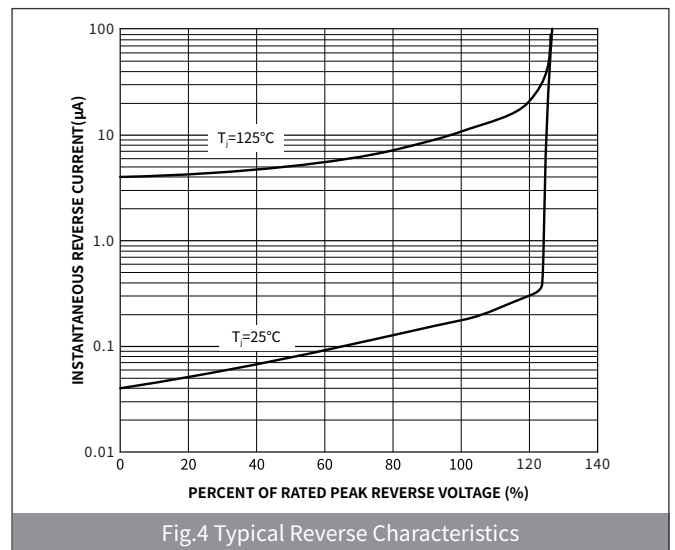
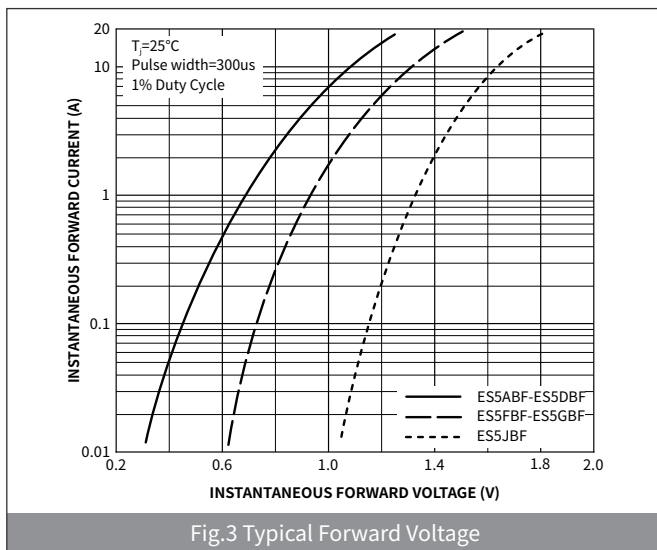
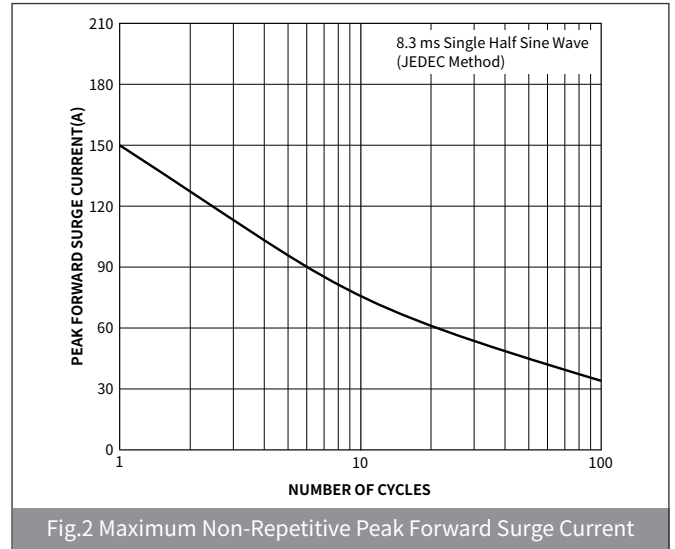
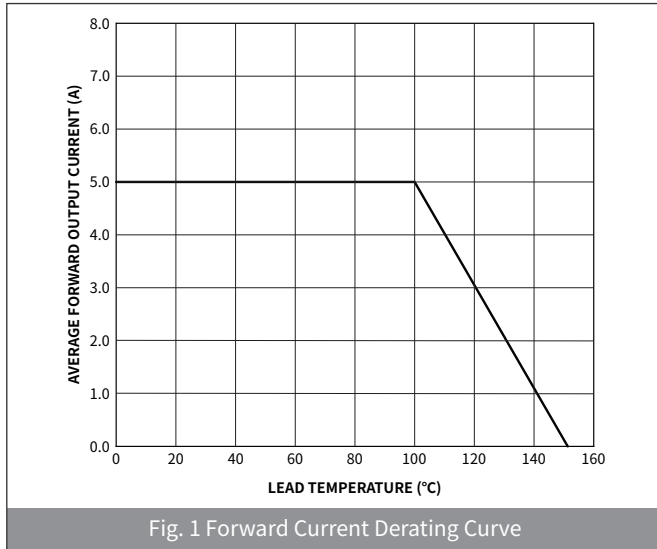
Electrical Characteristics (Ta=25°C Unless otherwise specified)

PARAMETER	TEST CONDITIONS	SYMBOL	UNIT	ES5ABF	ES5BBF	ES5CBF	ES5DBF	ES5EBF	ES5GBF	ES5JBF	
Maximum instantaneous forward voltage	$I_F=5.0A$	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 current at rated DC blocking voltage	$V_{RM}=V_{RRM}$	$T_a=25^\circ C$	I_R	μA	2.0						
		$T_a=125^\circ C$			200						
Typical junction capacitance	4.0V DC, 1MHz	C_j	pF	76							

SMBF



▶ 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
SMBF	R1	0.065	3000	12000	120000	7"
SMBF	R2	0.065	5000	15000	120000	11"
SMBF	R3	0.065	7500	15000	120000	13"

▶ Package Outline Dimensions (SMBF)

Symbol	Dimensions			
	Millimeters		Inches	
	Min.	Max.	Min.	Max.
A	1.30	1.60	0.051	0.063
B	3.30	3.70	0.129	0.145
C	2.40	2.70	0.094	0.105
D	4.40	4.90	0.172	0.191
E	0.90	1.20	0.035	0.047
F	0.80	1.20	0.031	0.047
G	0.12	0.20	0.005	0.008

▶ Suggested Pad Layout

Symbol	Dimensions			
	Millimeters		Inches	
	Min.	Max.	Min.	Max.
M	1.80	-	0.070	-
J	1.60	-	0.063	-
K	-	2.2	-	0.086

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