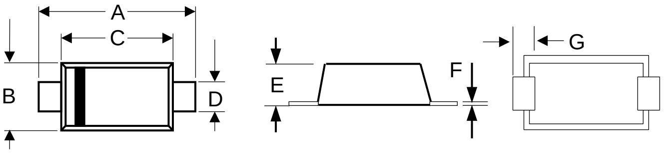
ES3ABF THRU ES3JBF

3.0 Amp. Surface Mount Glass Passivated Super Fast Rectifiers

Features

- * For surface mounted application
- * Low Profile Package
- * Glass Passivated Chip Junction
- * High Temp Soldering: 260℃ for 10seconds at Terminals
- * Superfast Recovery Times



RoHS COMPLIANT

DIM.	INCHES		MM	
	MIN	MAX	MIN	MAX
A	0.201	0.217	5.10	5.50
B	0.138	0.146	3.5	3.7
C	0.165	0.173	4.2	4.4
D	0.075	0.087	1.90	2.20
E	0.043	0.051	1.10	1.30
F	0.007	0.010	0.18	0.26
G	0.031	0.047	0.80	1.20

SMBF

Mechanical Data

- * Case: SMBF Molded plastic
- * Terminals: Solderable per MIL-STD-750, Method 2026
- * Polarity: Indicated by cathode band

Maximum Ratings and Electrical Characteristics (T$_A$=25℃ unless otherwise noted)

Type Number	Symbols	ES3ABF	ES3BBF	ES3CBF	ES3DBF	ES3GBF	ES3JBF	Unit
Maximum Repetitive Peak Reverse Voltage	V_{RRM}	50	100	150	200	400	600	V
Maximum RMS Voltage	V_{RMS}	35	70	105	140	280	420	V
Maximum D.C Blocking Voltage	V_{DC}	50	100	150	200	400	600	V
Maximum Average Forward Rectified Current	$I_{F(AV)}$	3						A
Peak Forward Surge Current, 8.3ms single half sine-wave	I_{FSM}	100						A
Maximum Instantaneous Forward Voltage at 3.0A	V_F	1.0				1.25	1.7	V
Maximum D.C Reverse Current @ T_J=25℃ at Rated D.C Blocking Voltage @ T_J=125℃	I_R	5 100						μA
Maximum Reverse Recovery Time (Note1)	Trr	35						nS
Typical Junction Capacitance(Note2)	C_J	35						pF
Typical thermal resistance (Note3)	$R_{\theta JA}$ $R_{\theta JC}$	45 15						℃/W
Operating and Storage Temperature Range	T_J / T_{STG}	-55 to +150						℃

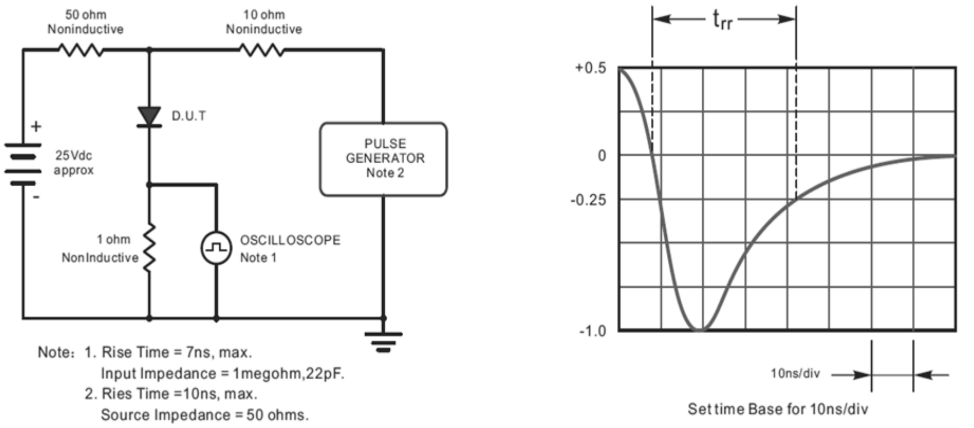
Note 1: Reverse Recovery Test Conditions: I_F=0.5A, I_R=1.0A, I_{RR}=0.25A

Note 2: Measured at 1 MHz and Applied Reverse Voltage of 4.0V D.C.

Note 3: P.C.B. mounted with 2.0" X 2.0" (5 X 5 cm) copper pad areas.

Ratings and Characteristic Curves

Fig.1 Reverse Recovery Time Characteristic And Test Circuit Diagram



Note: 1. Rise Time = 7ns, max.
Input Impedance = 1megohm,22pF.
2. Ries Time =10ns, max.
Source Impedance = 50 ohms.

Fig.2 Maximum Average Forward Current Rating

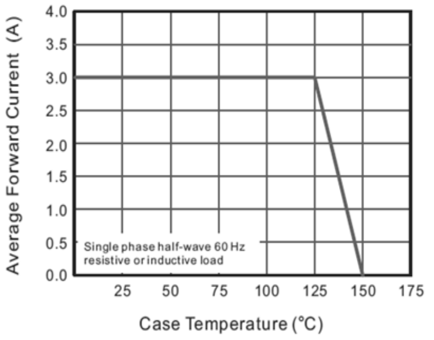


Fig.3 Typical Reverse Characteristics

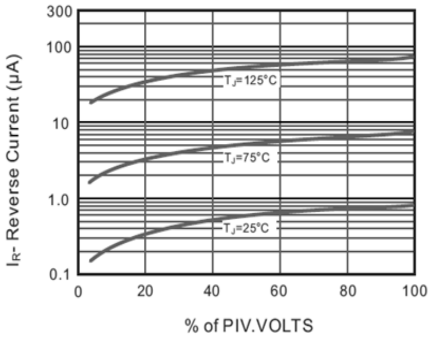


Fig.4 Typical Forward Characteristics

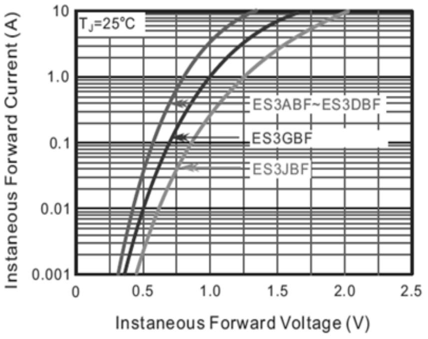


Fig.5 Typical Junction Capacitance

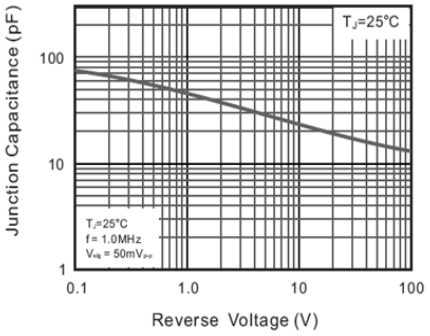
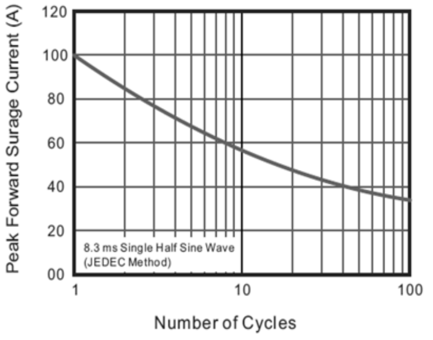


Fig.6 Maximum Non-Repetitive Peak
Forward Surge Current



Ordering Information

Part No.	Package	Packing Code	Packing
ES3ABF THRU ES3JBF	SMBF	R50	5000pcs/Reel

Disclaimer

Specifications of the products displayed herein are subject to change without notice. JGD or anyone on its behalf,assumes no responsibility or liability for any errors inaccuracies.

Information contained herein is intended to provide a product description only. No license, express or implied,to any intellectual property rights is granted by this document. Except as provided in JGD's terms and conditions of sale for such products, JGD assumes no liability whatsoever, and disclaims any express or implied warranty,relating to sale and/or use of JGD products including liability or warranties relating to fitness for a particular purpose,merchantability, or infringement of any patent, copyright, or other intellectual property right.

The products shown herein are not designed for use in medical, life-saving, or life-sustaining applications.Customers using or seling these products for use in such applications do so at their own risk and agree to fully indemnify JGD for any damages resulting from such improper use or sale.