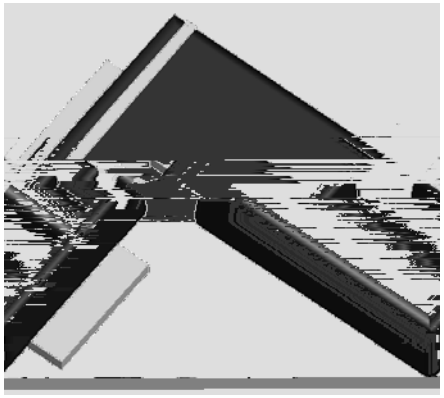
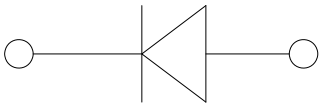
Surface Mount General Purpose Rectifier





Features

- Low profile package
- Ideal for automated placement
- Glass passivated chip junction
- High forward surge capability
- Meets MSL level 1, per J-STD-020, LF maximum peak of 260 °C

Typical Applications

For use in general purpose rectification of power supplies, inverters, converters, and freewheeling diodes for consumer, and telecommunication.

Mechanical Data

- **Package**: SMBF
  Molding compound meets UL 94 V-0 flammability rating, RoHS-compliant, halogen-free
- **Terminals**: Tin plated leads, solderable per J-STD-002 and JESD22-B102
- **Polarity:** Cathode line denotes the cathode end

■Maximum Ratings (T_a=25 Unless otherwise specified

PARAMETER	SYMBOL	UNIT	GS3ABF	GS3BBF	GS3DBF	GS3GBF	GS3JBF	GS3KBF	GS3MBF
Device marking code			GS3ABF	GS3BBF	GS3DBF	GS3GBF	GS3JBF	GS3KBF	GS3MBF
Maximum Repetitive peak reverse voltage	V_{RRM}	V	50	100	200	400	600	800	1000
Maximum RMS Voltage	V_{RMS}	V	35	70	140	280	420	560	700
Maximum DC Blocking Voltage	V_{DC}	V	50	100	200	400	600	800	1000
Average rectified output current @60Hz sine wave, resistance load, TL (Fig.1)	I_O	A	3.0						
Forward Surge Current (Non-repetitive) @60Hz Half-sine wave,1 cycle, Tj=25 @1ms, square wave, 1 cycle, Tj=25	I_{FSM}	A	½		½		2		0
Current squared time @1ms≤t≤8.3ms Tj=25 Rating of per diode	I^2t	A^2s	41.5						
Typical junction capacitance @Measured at 1MHz and Applied Reverse Voltage of 4.0 V.D.C	Cj	pF	25						
Storage temperature	T_{stg}		-55 ~ +150						
Junction temperature	T_j		-55 ~ +150						

				GS3JBF	GS3KBF	GS3MBF
			1.1			
			5			
		T_j =125	100			

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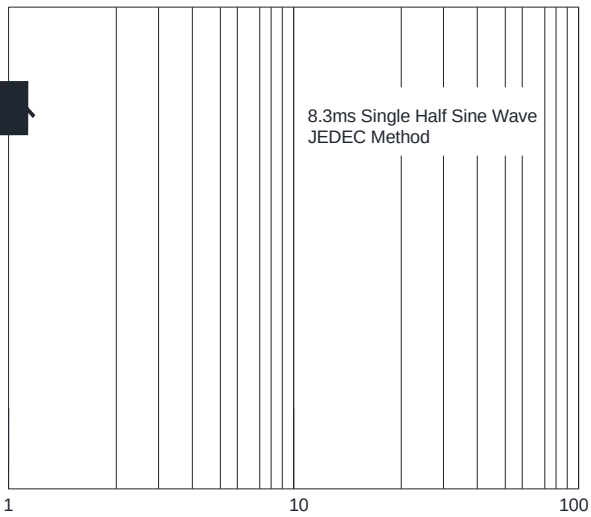
PARAMETER	SYMBOL	UNIT	GS3ABF	GS3BBF	GS3DBF	GS3GBF	GS3JBF	GS3KBF	GS3MBF
Typical Thermal Resistance	$R_{\theta J-A}$(1)	/W	60						
	$R_{\theta J-L}$(1)		20						
	$R_{\theta J-C}$(1)		15						

Note:
(1) Thermal resistance from junction to ambient and from junction to lead mounted on P.C.B. with 0.3" x 0.3" (8.0 mm x 8.0 mm) copper pad areas

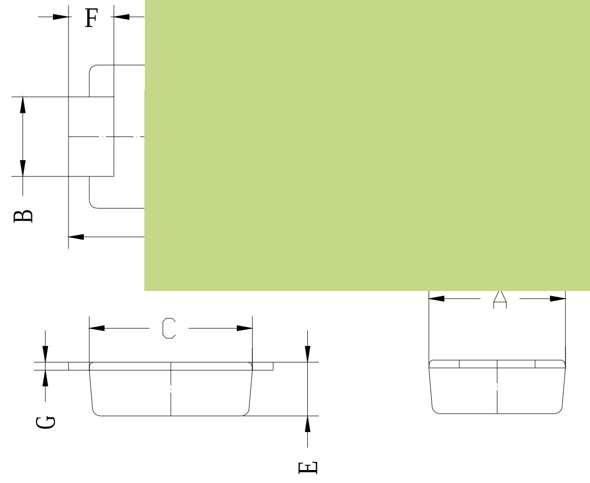
■ **Characteristics** (Typical)



■**Ordering Information** (Example)

PREFERED P/N	PACKING CODE	U * d̰ p P D ɹ hR (A (ԿΈ · ώ ˍ ʿ MώN

SMBF



Dimensions in millimeters

■ **Suggested pad layout**

Dim	Milimeters
P1	6.20
P2	2.40

Disclaimer

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The product listed herein is designed to be used with ordinary electronic equipment or devices, and not designed to be used with equipment or devices which require high level of reliability and the malfunction of with would directly endanger human life (s