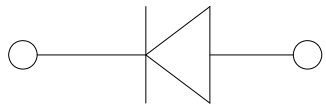
Surface Mount Fast Recovery Rectifier



Features

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

Typical Applications

For use in high frequency 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-02Cathode band denotes the cathode end

■Maximum Ratings (T_a=25 Unless otherwise specified

PARAMETER	SYMBOL	UNIT	GR4MBF
Device marking code			GR4MBF
Maximum Repetitive Peak Reverse Voltage	V_{RRM}	V	1000
Maximum RMS Voltage	V_{RMS}	V	700
Maximum DC blocking Voltage	V_{DC}	V	1000
Average rectified output current @60Hz half-sine wave, resistance load, TC (Fig.1)	I_O	A	4.0
Forward Surge Current (Non-repetitive) @60Hz Half-sine wave,1 cycle, Tj=25 Forward Surge Current (Non-repetitive) @1ms, square wave, 1 cycle, Tj=25	I_{FSM}	A	120 T_{stg} -55
Junction temperature	T_j		-55 ~ +150

■Electrical Characteristics T_a=25 Unless otherwise specified

PARAMETER	SYMBOL	UNIT	TEST CONDITIONS	GR4MBF
	I_R	μA	T_j=25	5.0
			T_j=125	100

■Thermal Characteristics T_a=25 Unless otherwise specified

PARAMETER	SYMBOL	UNIT	GR4MBF
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)

FIG1 Io-Tc Curve

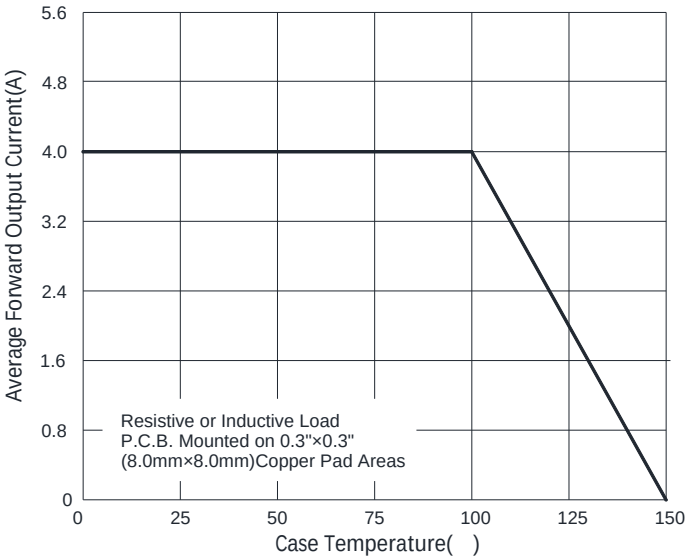
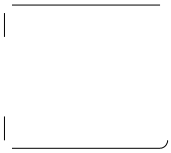


FIG3

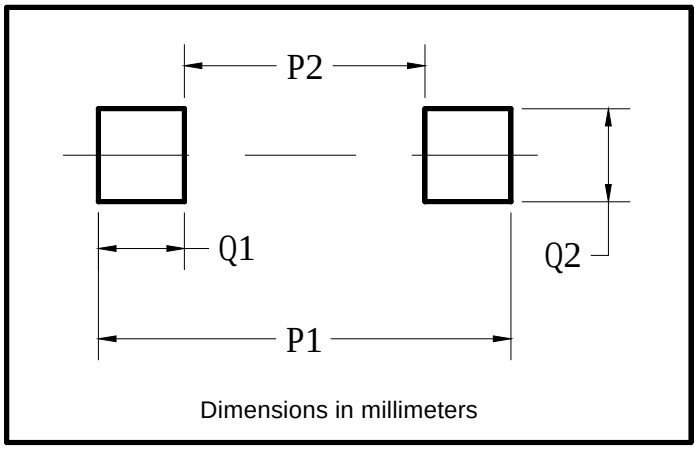
Instantaneous Forward Current(A)

SMBF



Dimensions in millimeters

■ Suggested pad layout



Dim	Milimeters
P1	6.20
P2	2.40
Q1	1.90
Q2	2.20

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