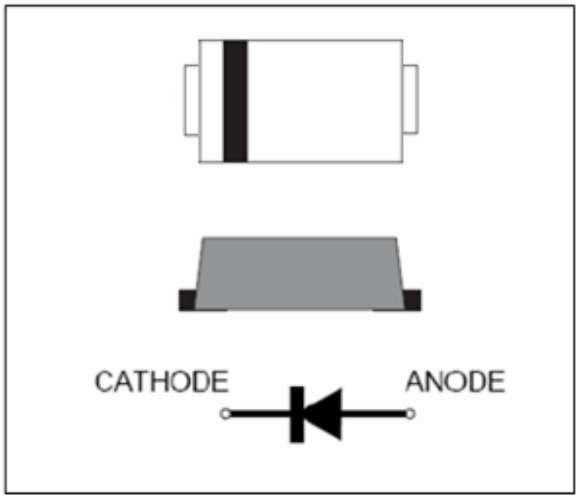
Surface Mount Glass Passivated Super Fast Rectifiers
Reverse Voltage 50 to 600V Forward Current 2.0A

FEATURES

* Plastic package has Underwriters Laboratory Flammability Classification 94V-0
* High temperature metallurgically bonded construction
* For use in high frequency rectifier circuits
* Fast switching for high efficiency
* Cavity-free glass passivated junction
* Capable of meeting environmental standards of MIL-S-19500
* 2.0 A operation at TC=75°C with no thermal runaway
* Typical IR less than 1.0μA
* High temperature soldering guaranteed: 260°C/10 seconds



Mechanical Data

Case: JEDEC SMB-FL molded plastic over glass Die

Terminals: Plated leads, solderable per MIL-STD-750, Method 2026

Polarity: Color band denotes cathode end

Mounting Position Any

Weight: 0.066 g

Handling precautin None

we declare that the material of product is halogen free (green epoxy compound).

Electrical Characteristic

1.Maximum & Thermal Characteristics Ratings at 25°C ambient temperature unless otherwise specified.

Parameter Symbol	symbol	EFMB F201	EFMB F202	EFMB F203	EFMB F204	EFMB F205	EFMB F206	EFMB F207	EFMB F208	Unit
Device marking code		EF201	EF202	EF203	EF204	EF205	EF206	EF207	EF208	
Maximum repetitive peak reverse voltage	V_{RRM}	50	100	150	200	300	400	500	600	V
Maximum RMS voltage	V_{RMS}	35	70	105	140	210	280	350	420	V
Maximum DC blocking voltage	V_{DC}	50	100	150	200	300	400	500	600	V
Maximum average forward rectified current at T_C = 75°C	IF(AV)	2.0								A
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC Method)	I_{FSM}	50								A
Typical thermal resistance (Note 1)	RθJA RθJC	135 25								°C/W
Operating junction and storage temperature range	TJ, TSTG	–50 to +150								°C

Electrical Characteristics Ratings at 25°C ambient temperature unless otherwise specified.

Parameter Symbol	symbol	EFMB F201	EFMB F202	EFMB F203	EFMB F204	EFMB F205	EFMB F206	EFMB F207	EFMB F208	Unit
Maximum instantaneous forward voltage at 2.0A	V_F	0.95				1.25		1.7		V
Maximum DC reverse current TA = 25°C at rated DC blocking voltage TJ = 125°C	IR	5.0 100								μA
Typical reverse recovery time (Note 1)	trr	35								ns
Typical junction capacitance at 4.0V, 1MHz	CJ	15.0								PF

NOTES:

1. IF = 0.5A, IR = 1.0A, IRR = 0.25A

2. 8.0mm2 (.013mm thick) land areas

2.Ratings and Characteristic Curves (TA = 25°C unless otherwise noted)

Fig. 1 – Forward Current Derating Curve

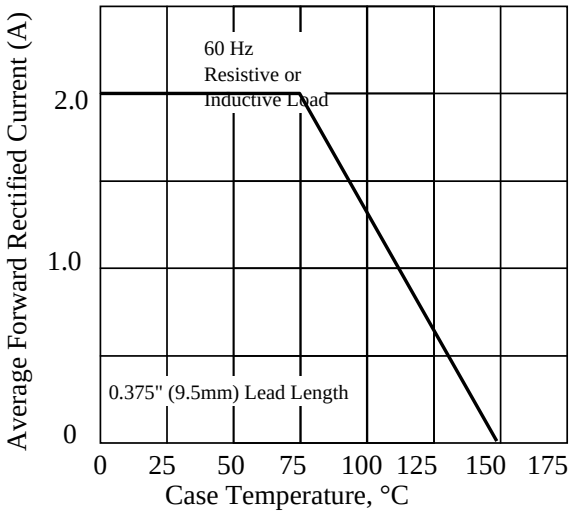


Fig. 2 – Maximum Non-repetitive Peak Forward Surge Current

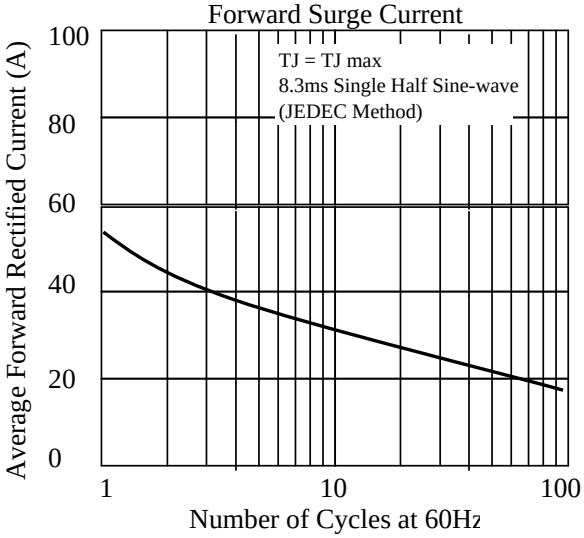


Fig 3. – Typical Instantaneous Forward Characteristics

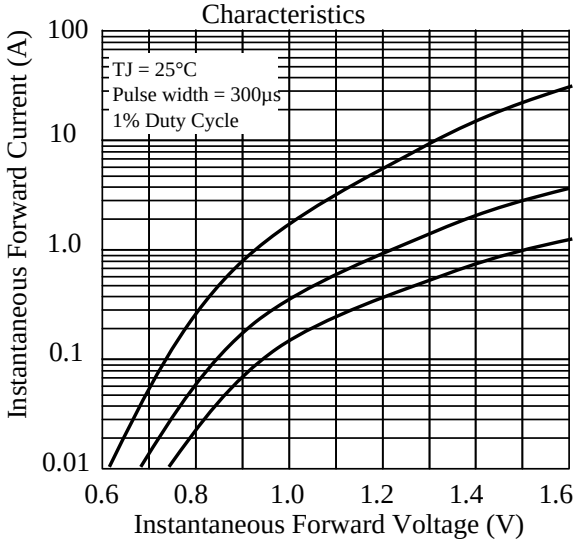


Fig 4. – Typical Reverse Characteristics

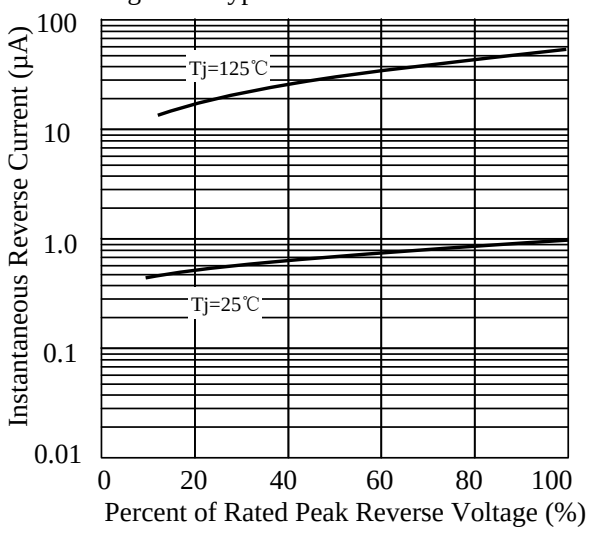


Fig 5. – typical transient thermal impedance

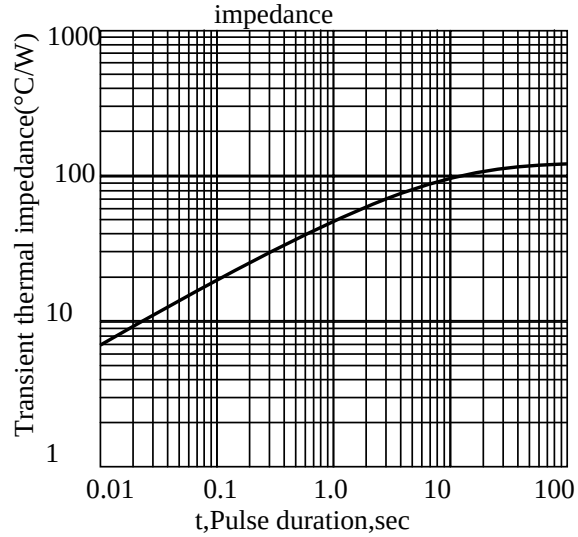
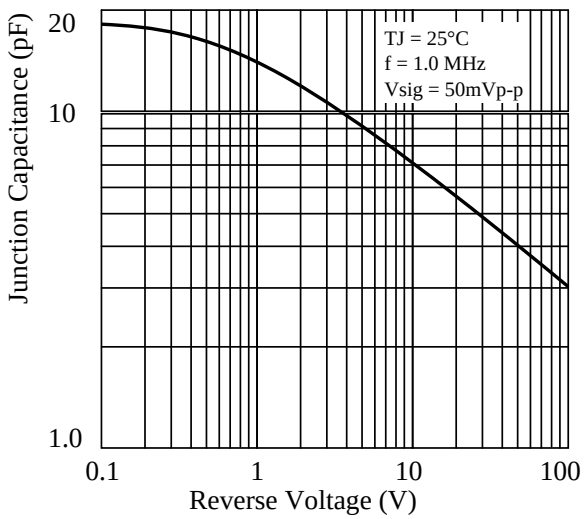
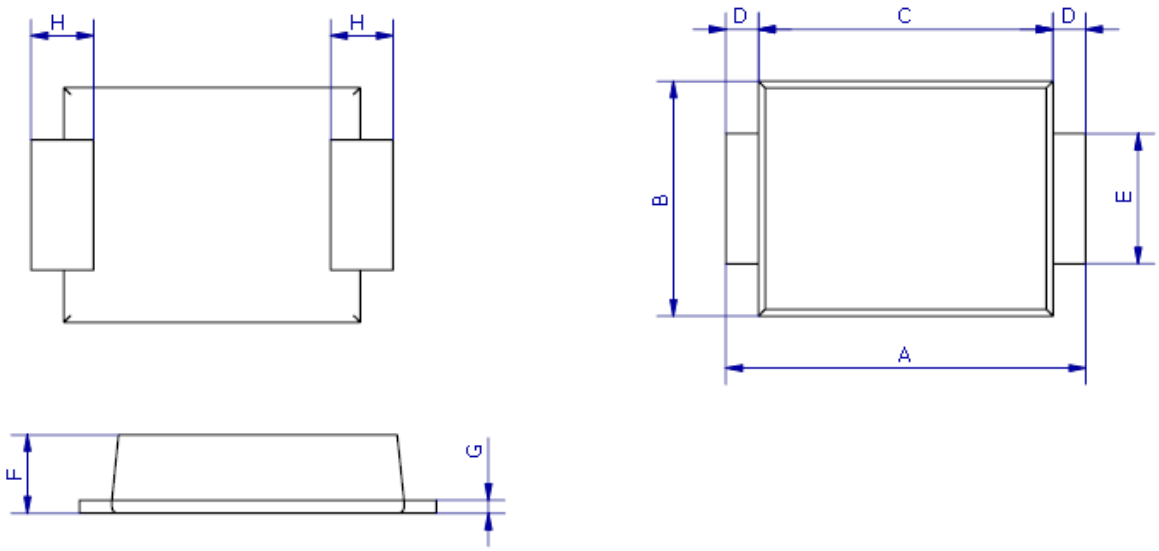


Fig 6. – Typical Junction Capacitance



3. dimension:

SMB-FL



DIM	MILLIMETERS		INCHES	
	MIN	MAX	MIN	MAX
A	5.3	5.7	0.209	0.224
B	3.4	3.8	0.134	0.150
C	4.3	4.7	0.169	0.185
D	0.45Typ		0.018Typ	
E	1.9	2.1	0.0748	0.08268
F	1.05	1.40	0.04134	0.05512
G	0.2	0.3	0.00591	0.00984
H	0.95Typ		0.037Typ	

Mounting Pad Layout

--- SMB-FL