

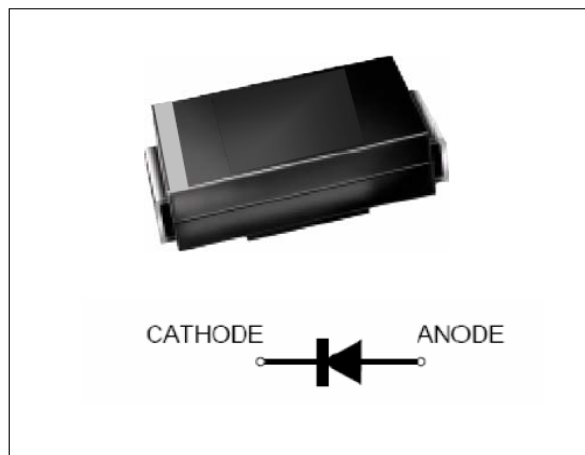
S-EFM104

Surface Mount Glass Passivated Super Fast Rectifiers

Reverse Voltage 200V Forward Current 1.0A

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
- * 1.0 A operation at $T_L=100^{\circ}\text{C}$ with no thermal runaway
- * Typical IR less than $1.0\mu\text{A}$
- * High temperature soldering guaranteed: $260^{\circ}\text{C}/10$ seconds
- * S- Prefix for Automotive and Other Applications Requiring Unique Site and Control Change Requirements; AEC-Q101 Qualified and PPAP Capable.



We declare that the material of product compliancewith ROHS requirements

2.Mechanical Data

Case: JEDEC DO-214AC, molded plastic over glass body

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

Polarity: Color band denotes cathode end

Mounting Position: Any

Weight: 0.0023 oz., 0.065 g

Handling precautin:None

3. DEVICE MARKING AND ORDERING INFORMATION

Device	Marking	Shipping
S-EFM104	EF4	7500/Tape&Reel

4.Electrical Characteristic

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

Parameter Symbol	symbol	S-EFM104	Unit
Maximum repetitive peak reverse voltage	V_{RRM}	200	V
Maximum RMS voltage	V_{RMS}	140	V
Maximum DC blocking voltage	V_{DC}	200	V
Maximum average forward rectified current at $T_L = 100^{\circ}\text{C}$	$I_F(\text{AV})$	1.0	A
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC Method)	I_{FSM}	30	A
Typical thermal resistance (Note 2)	$R_{\theta JA}$	150	$^{\circ}\text{C}/\text{W}$
Operating junction and storage temperature range	T_J, T_{STG}	-50 to $+150$	$^{\circ}\text{C}$

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

Parameter Symbol	symbol	S-EFM104	Unit
Maximum instantaneous forward voltage at 1.0A	V_F	0.95	V
Maximum DC reverse current $T_A = 25^{\circ}\text{C}$ at rated DC blocking voltage $T_J = 125^{\circ}\text{C}$	IR	5.0 100	μA
Typical reverse recovery time (Note 1)	t_{rr}	35	ns
Typical junction capacitance at 4.0V, 1MHz	CJ	8.0	PF

NOTES:

1. $I_F = 0.5\text{A}$, $I_R = 1.0\text{A}$, $IRR = 0.25\text{A}$
2. 8.0mm^2 (.013mm thick) land areas
3. V_F & TRR & V_{DC} & I_R all test; other parameter is scheme out.

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

Fig. 1 - Forward Current Derating Curve

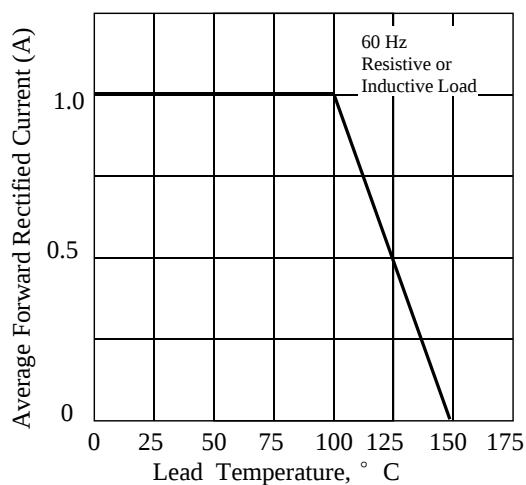


Fig. 2 - Maximum Non-repetitive Peak Forward Surge Current

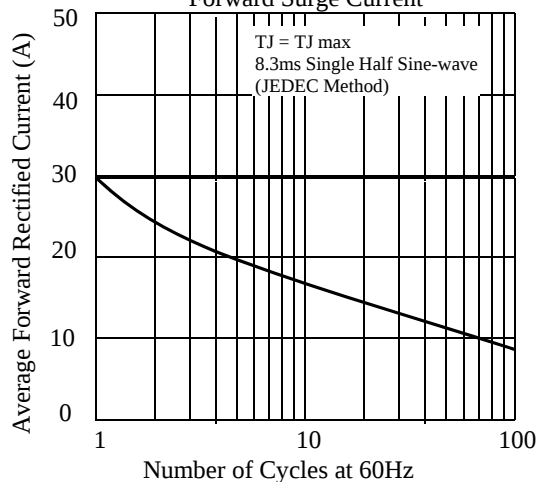


Fig 3. - Typical Instantaneous Forward Characteristics

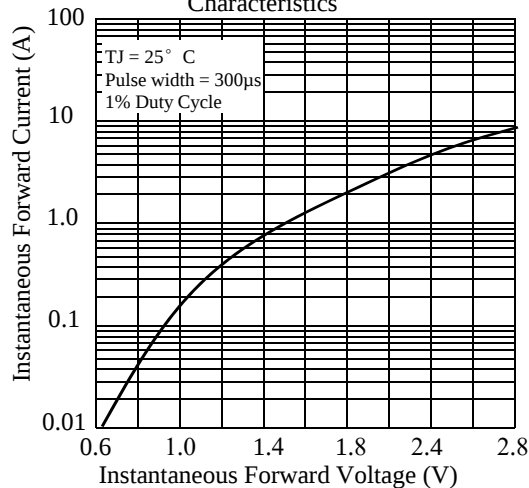


Fig 4. - Typical Reverse Characteristics

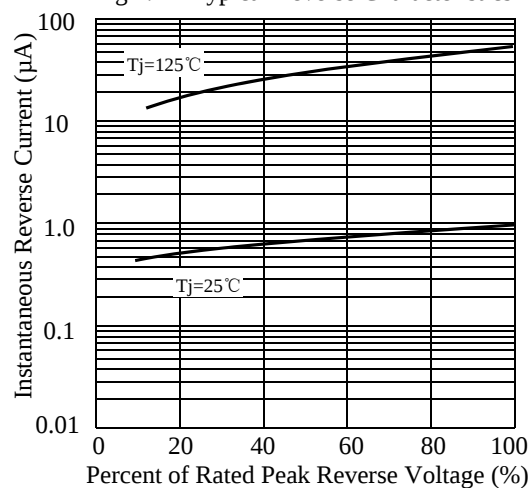


Fig 5. - typical transient thermal impedance

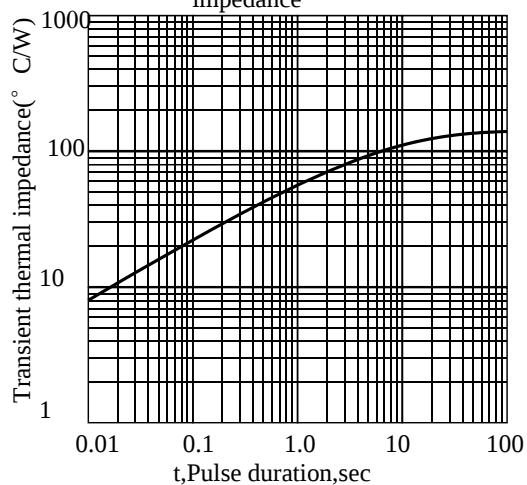
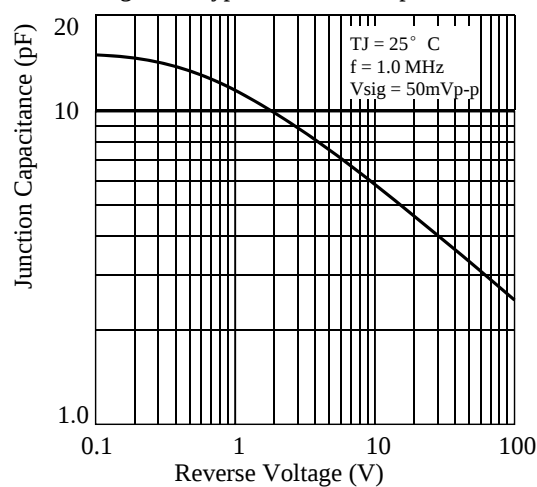
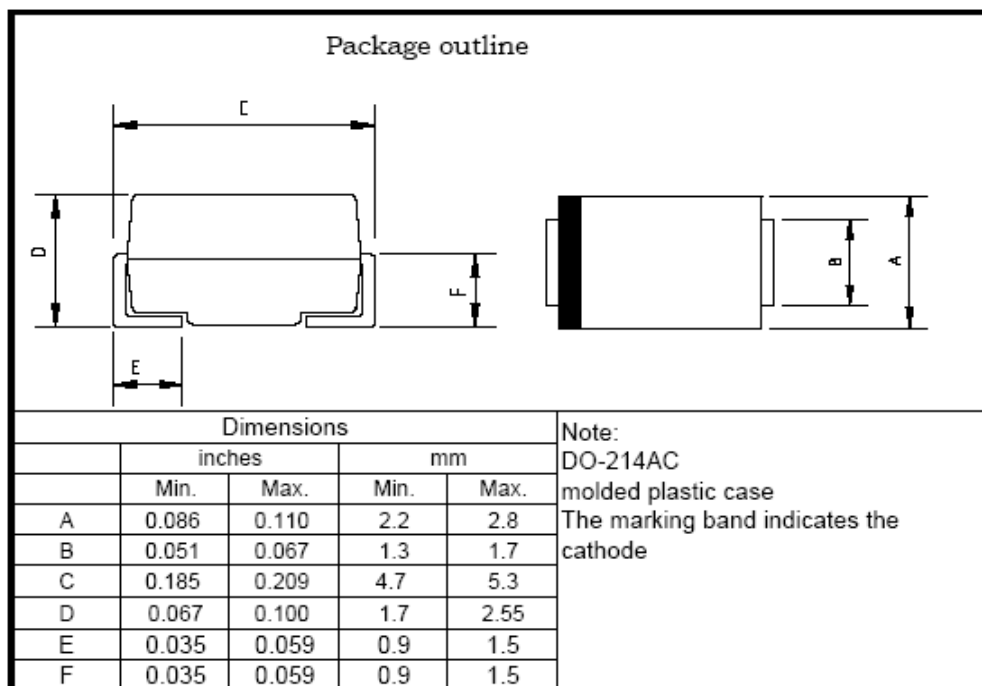


Fig 6. - Typical Junction Capacitance



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6. dimension:



Mounting Pad Layout ---SMA

