

EFM101 thru EFM108

1.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 $T_A=75^{\circ}\text{C}$ with no thermal runaway
- * Typical IR less than $1.0\mu\text{A}$
- * High temperature soldering guaranteed: $260^{\circ}\text{C}/10$ seconds

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: 0.002 oz., 0.061 g

Handling precaution: None

3.Electrical Characteristic

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

Parameter Symbol	symbol	EFM 101	EFM 102	EFM 103	EFM 104	EFM 105	EFM 106	EFM 107	EFM 108	Unit
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 0.375" (9.5mm) lead length at $T_A = 75^{\circ}\text{C}$	$I_F(AV)$	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)	$R_{\theta JA}$	55								$^{\circ}\text{C}/\text{W}$
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	EFM 101	EFM 102	EFM 103	EFM 104	EFM 105	EFM 106	EFM 107	EFM 108	Unit
Maximum instantaneous forward voltage at 1.0A	V _F	0.95				1.25		1.7		V
Maximum DC reverse current TA = 25°C at rated DC blocking voltage TA = 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. $I_F = 0.5\text{A}$, $I_R = 1.0\text{A}$, $I_{RR} = 0.25\text{A}$

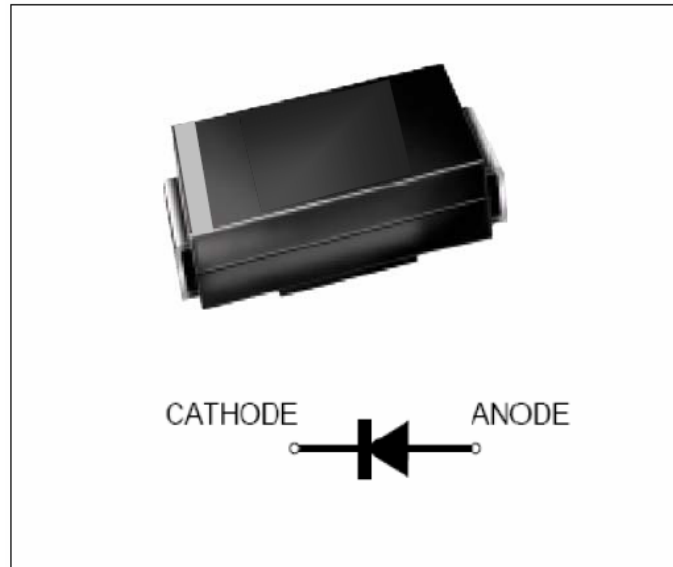
2. Thermal resistance from junction to ambient at 0.375" (9.5mm) lead length, P.C.B. mounted

Surface Mount Glass Passivated

Super Fast Rectifiers

Reverse Voltage 50 to 600V

Forward Current 1.0A



We declare that the material of product compliance with RoHS requirements.

4. Ratings and Characteristic Curves ($T_A = 25^\circ\text{C}$ unless otherwise noted)

Fig. 1 - Forward Current Derating Curve

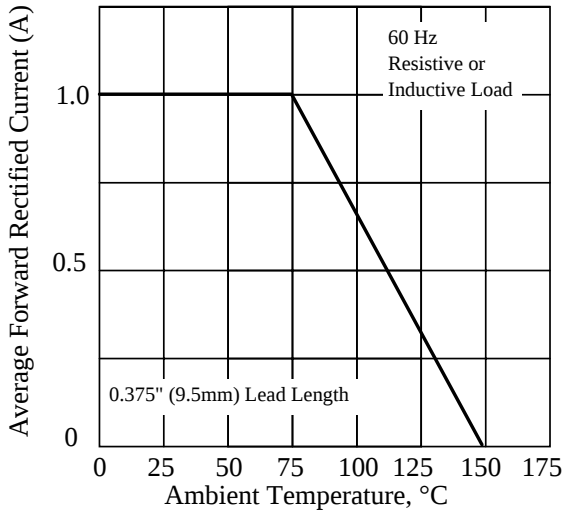


Fig. 2 - Maximum Non-repetitive Peak Forward Surge Current

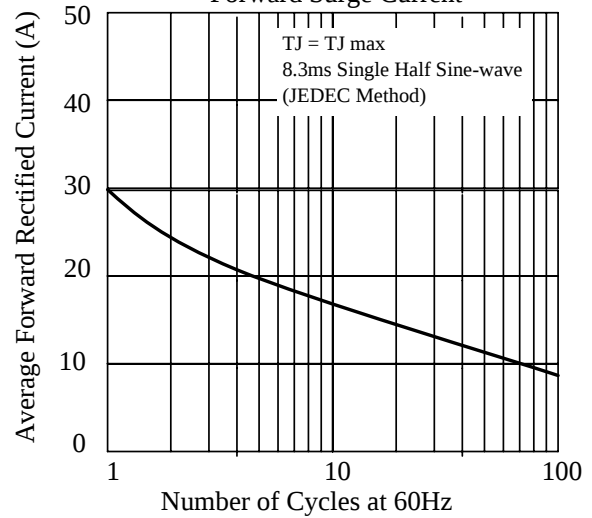


Fig 3. - Typical Instantaneous Forward Characteristics

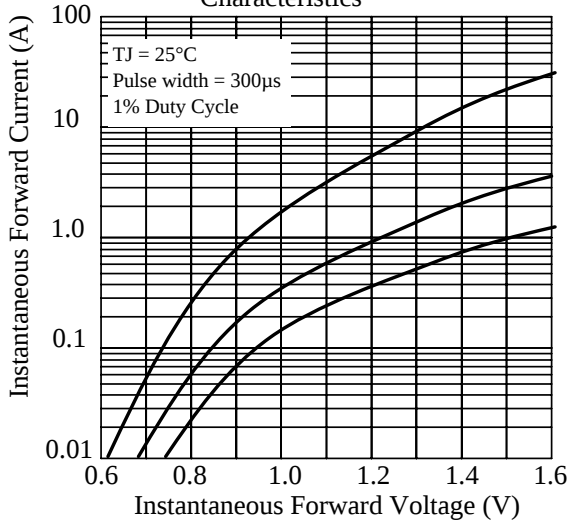


Fig 4. - Typical Reverse Characteristics

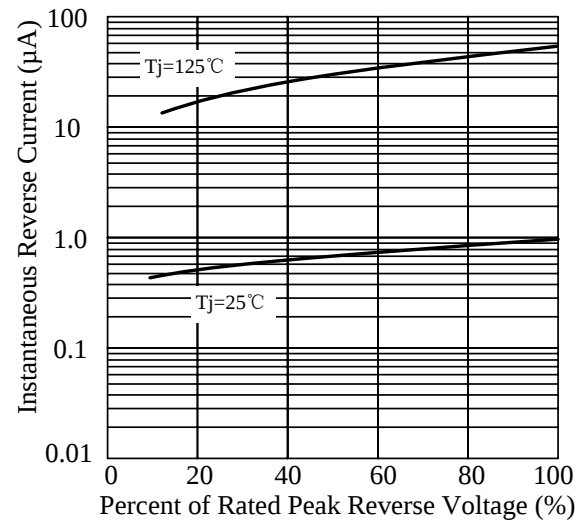


Fig 5. - typical transient thermal impedance

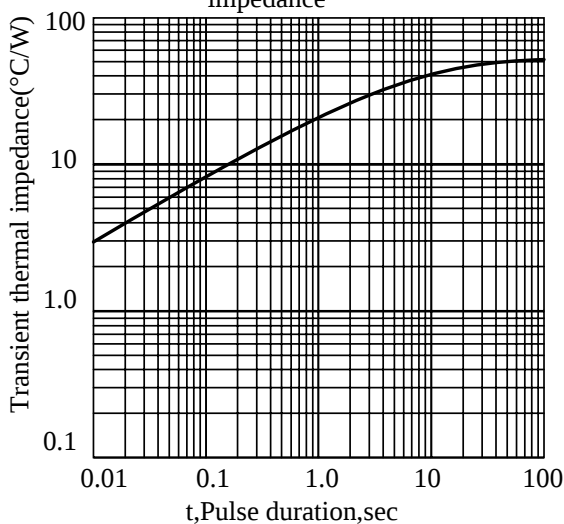
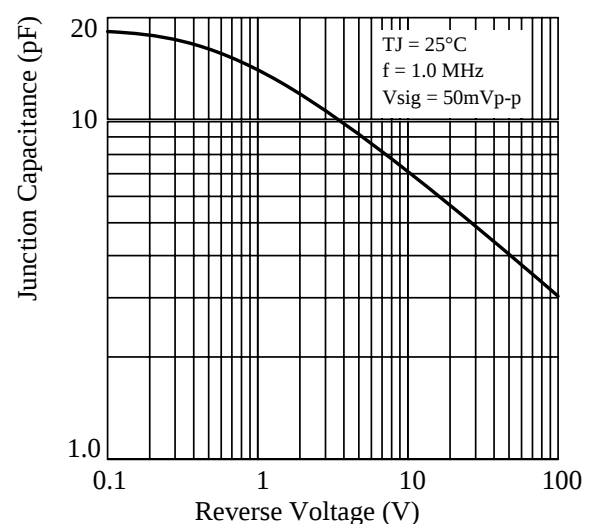
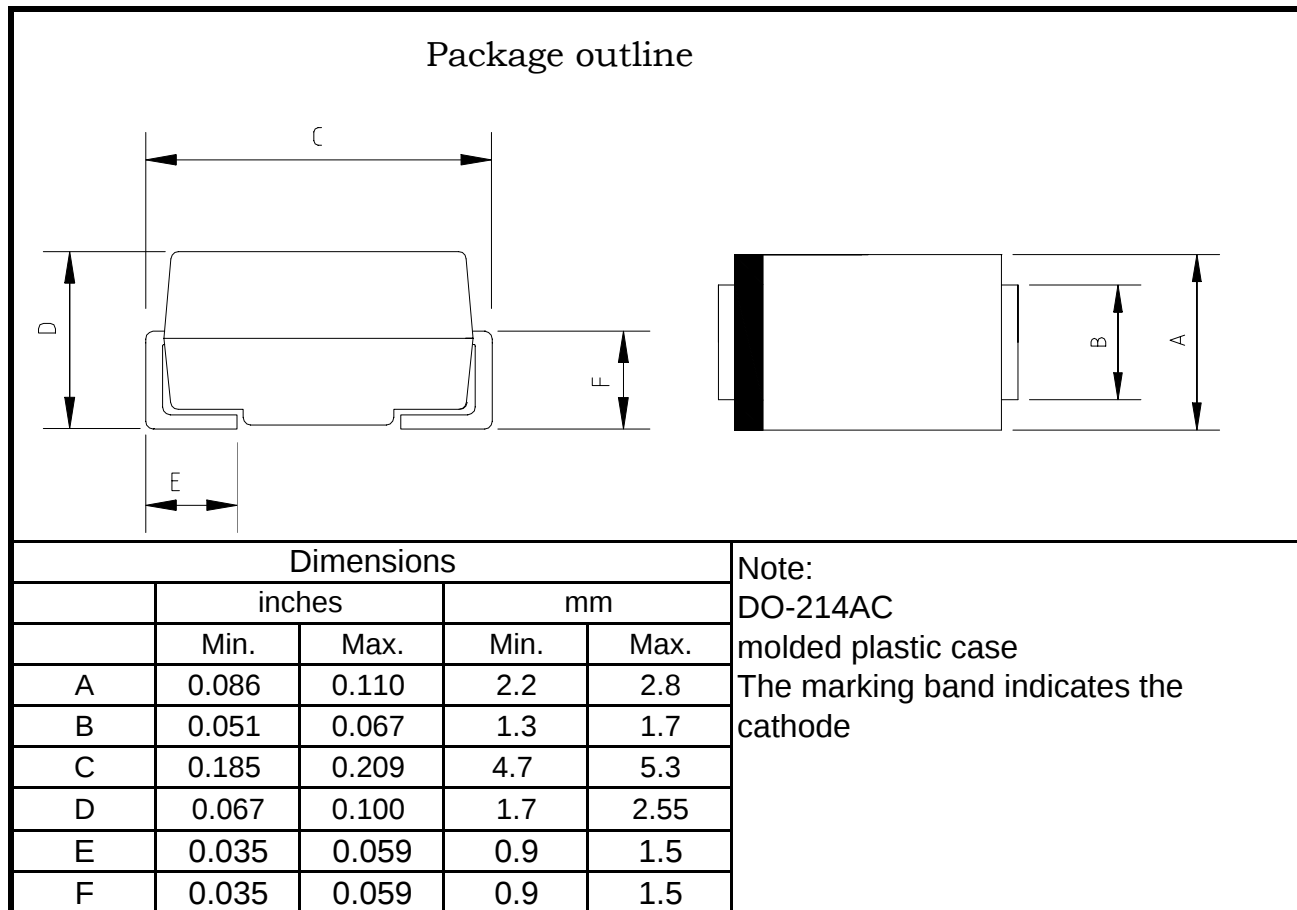


Fig 6. - Typical Junction Capacitance



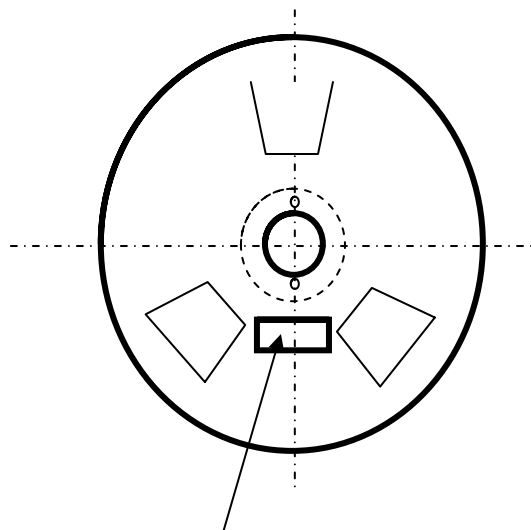
5.Package Dimensions in inches and (millimeters)



SMA Packing Specification

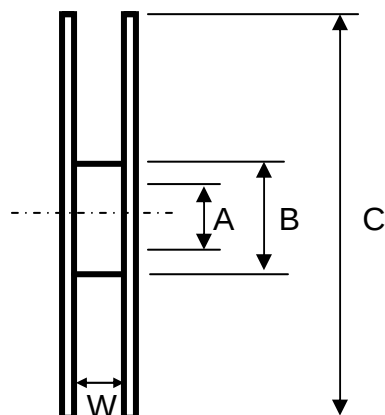
1. 卷盘规格/Reel Packing

Unit:mm



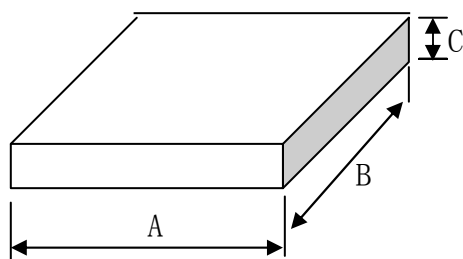
Label stike this position

Item	Q'ty/Taping
7"	2K
13"	5K



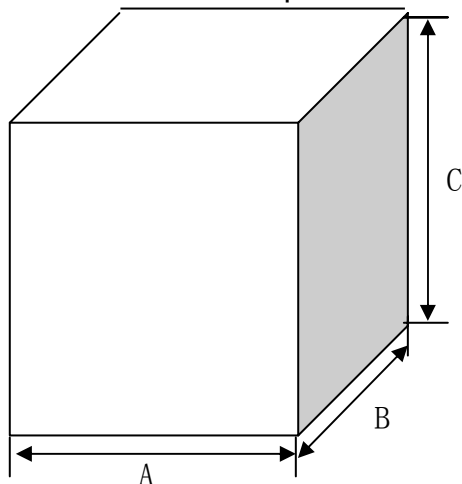
Item	Symbol	Dimension
13" Size	A	13.0±0.2
	B	75.0±0.5
	C	330±1.0
	W	13.2±1.0
7" Size	A	13.0±0.2
	B	54±0.5
	C	177±1.0
	W	13.2±1.0

2. 内箱规格/ Inside Box Specification



Item	Symbol	Dimension
Size	A	335±2
	B	335±2
	C	40±1

3. 外箱规格/Outer Box Specification



Item	Symbol	Dimension
Size	A	350±2
	B	350±2
	C	345±2