

## 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 TA=75°C with no thermal runaway
- \* Typical IR less than 1.0μA
- \* High temperature soldering guaranteed: 260°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								°C/W
Operating junction and storage temperature range	$T_J, T_{STG}$	-50 to +150								°C

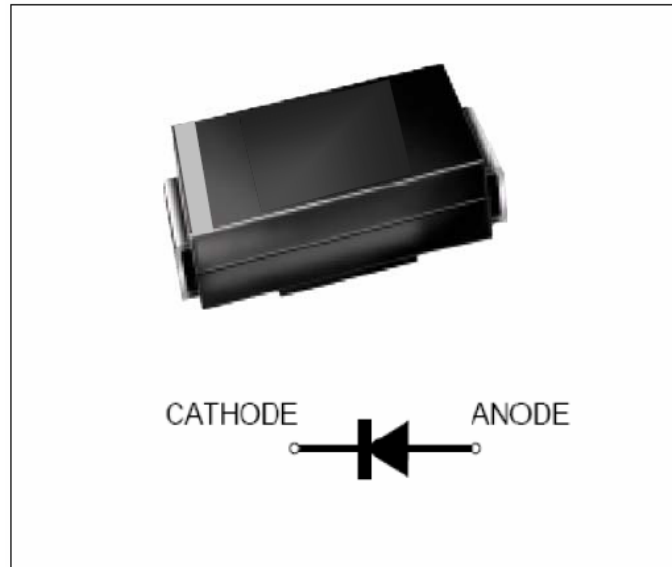
**Electrical Characteristics Ratings** at 25°C ambient temperature unless otherwise specified.

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 $T_A = 25^\circ\text{C}$ at rated DC blocking voltage $T_A = 125^\circ\text{C}$	$I_R$	5.0								μA
Typical reverse recovery time (Note 1)	$t_{rr}$	35								ns
Typical junction capacitance at 4.0V, 1MHz	$C_J$	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

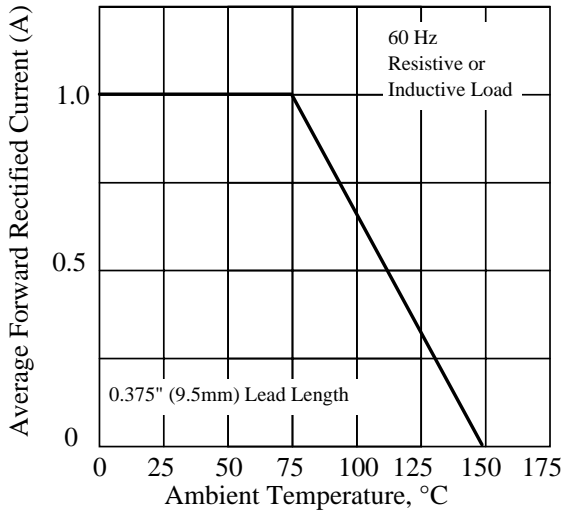


Fig. 2 - Maximum Non-repetitive Peak Forward Surge Current

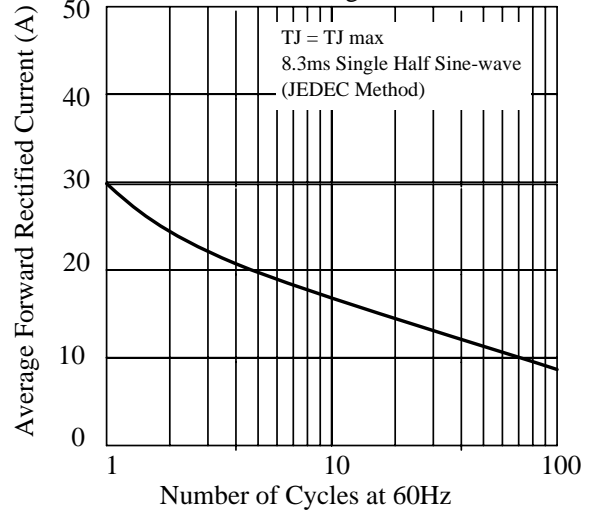


Fig 3. - Typical Instantaneous Forward Characteristics

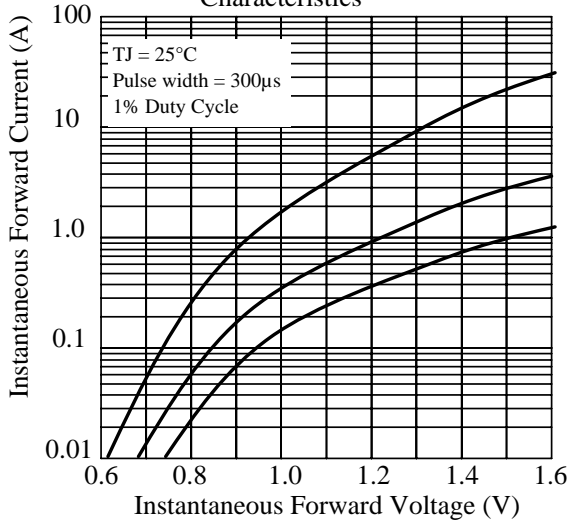


Fig 4. - Typical Reverse Characteristics

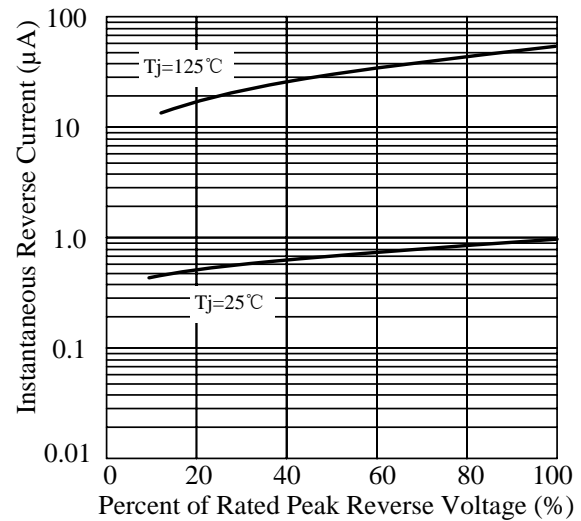


Fig 5. - typical transient thermal impedance

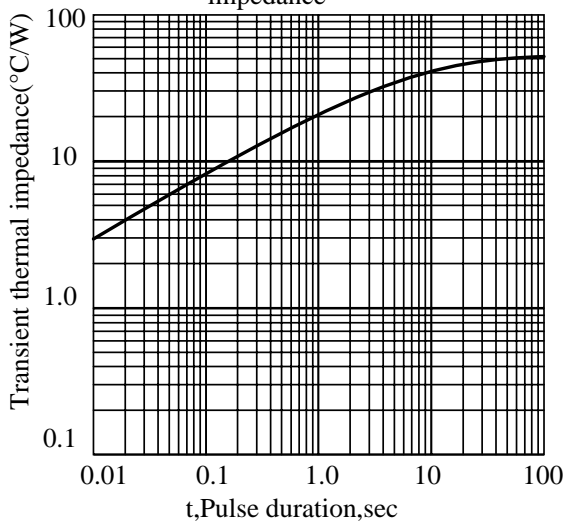
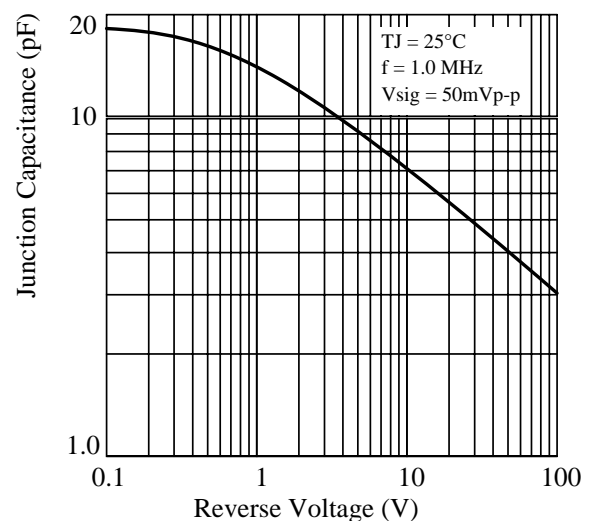
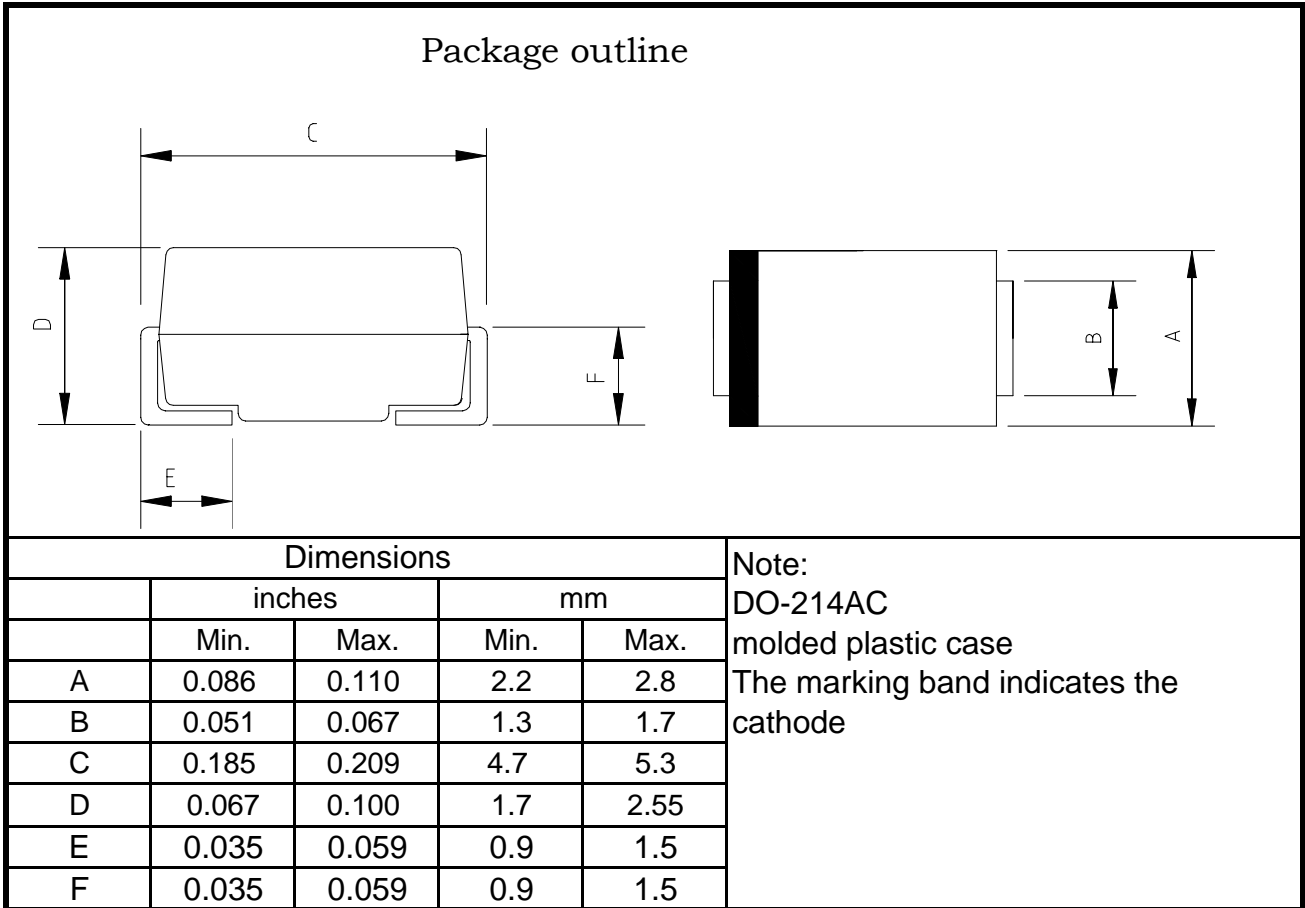


Fig 6. - Typical Junction Capacitance



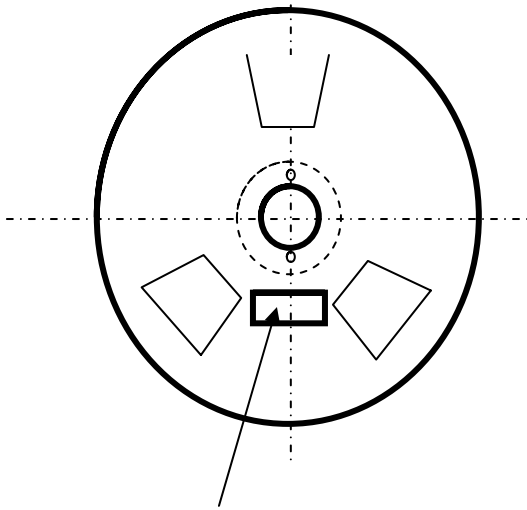
**5.Package Dimensions in inches and (millimeters)**



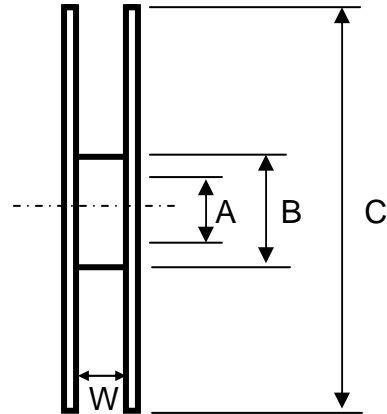
## SMA Packing Specification

### 1. 卷盘规格/Reel Packing

Unit:mm



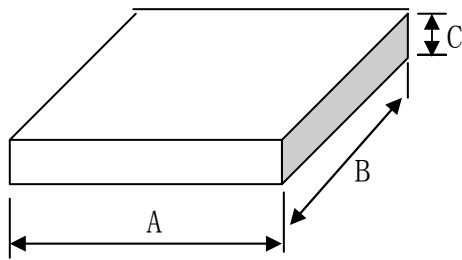
Label stike this position



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

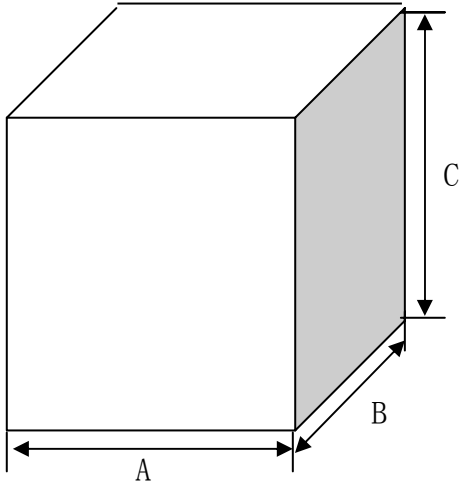
Item	Symbol	Dimension
13" Size	A	13.0±0.2
	B	75.0±0.5
	C	330±1.0
	W	13.2±1.0
7" Size	A	13.0±0.2
	B	54±0.5
	C	177±1.0
	W	13.2±1.0

### 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