

FFM101 thru FFM107T

Surface Mount Glass Passivated Fast recovery Rectifiers

Reverse Voltage 50 to 1000V Forward Current 1.0A

FEATURES

- * Plastic package has Underwriters Laboratory Flammability Classification 94V-0
- * High temperature metallurgically bonded construction
- * Cavity-free glass passivated junction
- * Capable of meeting environmental standards of MIL-S-19500
- * Fast Switching for high efficiency
- * Typical IR less than 1.0 μ A
- * High temperature soldering guaranteed: 260°C/10 seconds

Mechanical Data

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

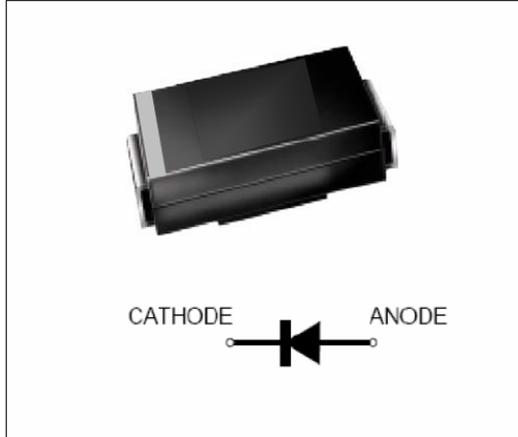
Terminals: Plated axial leads, solderable per MIL-STD-750, Method 2026

Polarity: Color band denotes cathode end

Mounting Position Any

Weight: 0.0023 oz., 0.065 g

Handling precaution None



We declare that the material of product compliance with ROHS requirements

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

Parameter Symbol	symbol	FFM 101	FFM 102	FFM 103	FFM 104	FFM 105	FFM 106	FFM 107	FFM 107P	FFM 107T	Unit
Device marking code		FF1	FF2	FF3	FF4	FF5	FF6	FF7	FF7P	FF7T	
Maximum repetitive peak reverse voltage	V_{RRM}	50	100	200	400	600	800	1000	1000	1000	V
Maximum Rms voltage	V_{Rms}	35	70	140	280	420	560	700	700	700	V
Maximum DC blocking voltage	V_{DC}	50	100	200	400	600	800	1000	1000	1000	V
Maximum average forward rectified current at $T_c = 100^\circ\text{C}$	$I_F(AV)$	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 θ JA	150									$^\circ\text{C/W}$
	R θ JC	40									
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	FFM 101	FFM 102	FFM 103	FFM 104	FFM 105	FFM 106	FFM 107	FFM 107P	FFM 107T	Unit
Maximum instantaneous forward voltage at 1.0A	V_F	1.3									V
Maximum DC reverse current $T_A = 25^\circ\text{C}$ at rated DC blocking voltage $T_A = 125^\circ\text{C}$	IR	1.0									μA
		100									
Typical reverse recovery time (Note 1)	t _{rr}	150			500			250	160	ns	
Typical junction capacitance at 4.0V, 1MHz	C _J	8.0									PF
Maximum DC reverse current @ $T_A = 65^\circ\text{C}, V_R = 80\text{V}, 90\%RH$	IRR _M	5									μA

NOTES:

1. $I_F = 0.5\text{A}$, $I_R = 1.0\text{A}$, $I_{RR} = 0.25\text{A}$

2. FR-4 Board, Heat sinks with single-sided copper foil, copper foil thickness 50 μm 1.77* 1.60 * 2

FFM101 thru FFM107T

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

Fig. 1 - Forward Current Derating Curve

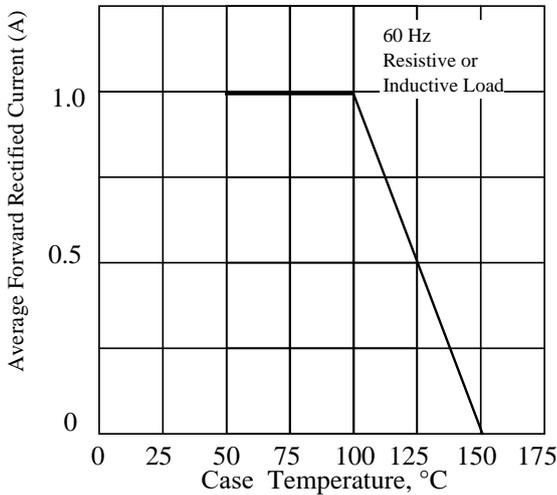


Fig. 2 - Maximum Non-repetitive Peak Forward Surge Current

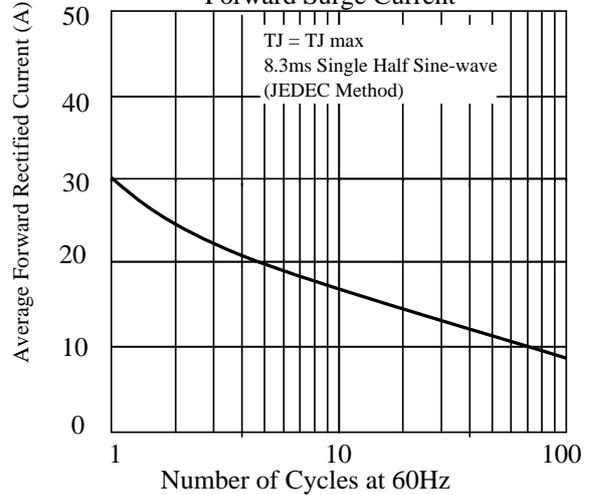


Fig 3. - Typical Instantaneous Forward Characteristics

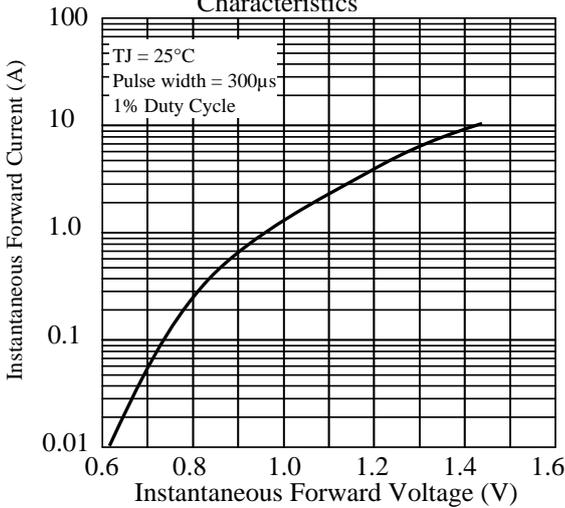


Fig 4. - Typical Reverse Characteristics

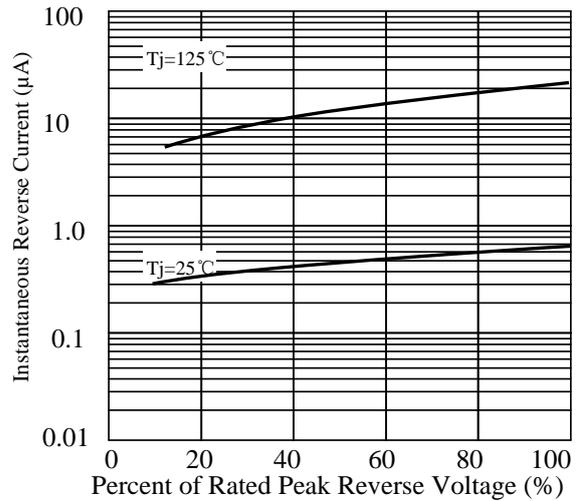


Fig 5. - typical transient thermal impedance

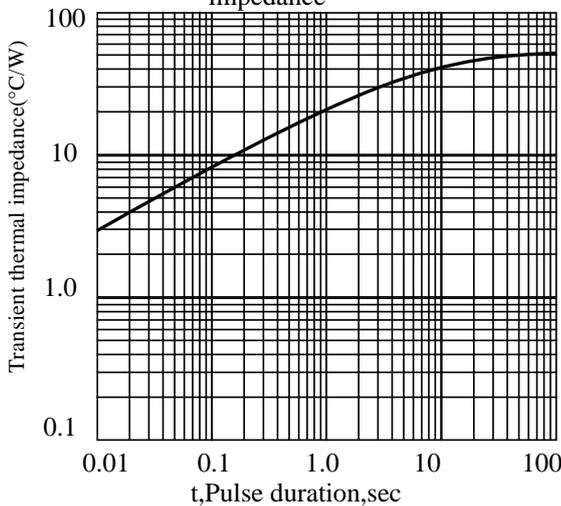
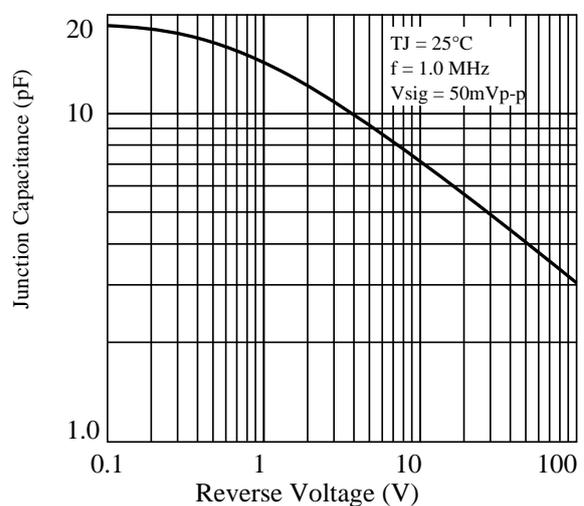
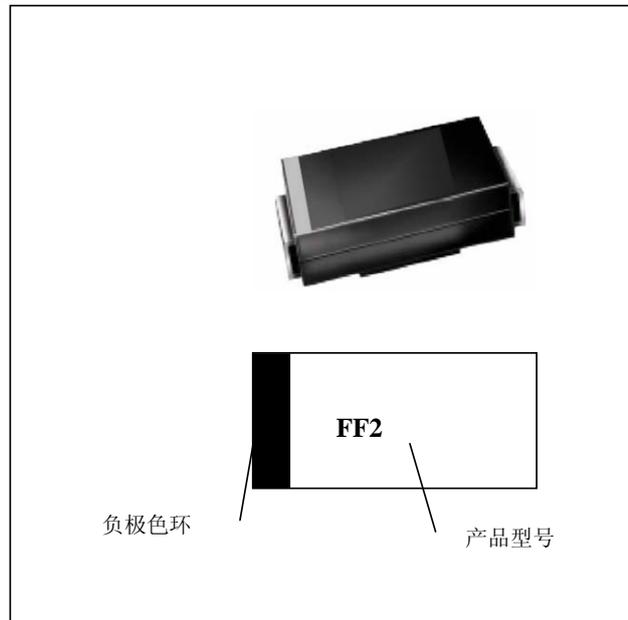
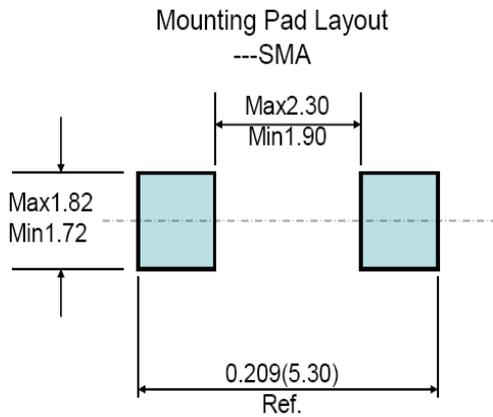
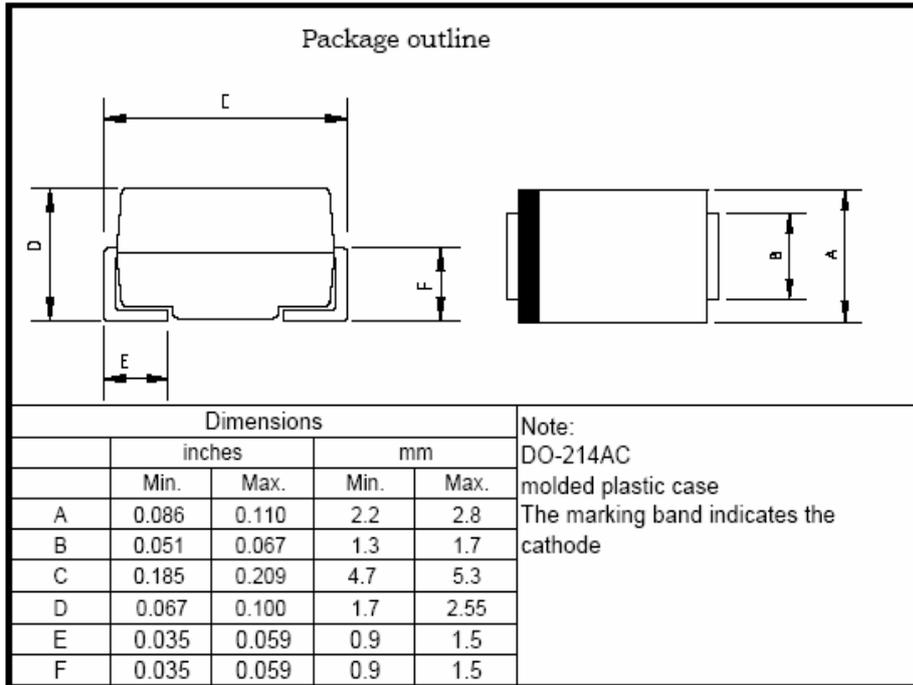


Fig 6. - Typical Junction Capacitance



FFM101 thru FFM107T

3. dimension:



FFM102: FF---快二极管; M---贴片产品; 1---IF=1A; 02---VB=100V;