



DESCRIPTION

The FM401~FM407 are available in SMA Package

ORDERING INFORMATION

Package Type	Part Number
SMA	FM401
	FM402
	FM403
	FM404
	FM405
	FM406
	FM407
Note	5,000pcs /Reel
AiT provides all RoHS Compliant Products	

PIN DESCRIPTION



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
- 1.0A operation at $T_A=75^{\circ}\text{C}$ with no thermal runaway
- Typical IR less than 1.0 μA
- High temperature soldering guaranteed: 260 $^{\circ}\text{C}/10$ seconds
- RoHS Compliant
- Available in SMA Package

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



ELECTRICAL CHARACTERISTICS

at 25°C ambient temperature unless otherwise specified

Parameter	Symbol	FM 401	FM 402	FM 403	FM 404	FM 405	FM 406	FM 407	Unit
Maximum repetitive peak reverse voltage	V_{RRM}	50	100	200	400	600	800	1000	V
Maximum RSM voltage	V_{RSM}	35	70	140	280	420	560	700	V
Maximum DC blocking voltage	V_{DC}	50	100	200	400	600	800	1000	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
Maximum reverse recovery time ^{Note1}	t_{RR}	3							μS
Typical thermal resistance ^{Note1}	$R_{\theta JA}$	75							$^\circ\text{C/W}$
Operating junction and storage temperature range	T_J , T_{STG}	-50 to +150							$^\circ\text{C}$

at 25°C ambient temperature unless otherwise specified

Parameter	Symbol	FM 401	FM 402	FM 403	FM 404	FM 405	FM 406	FM 407	Unit
Maximum instantaneous forward voltage at 1.0A	V_F	1.1							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 50							μA
Typical junction capacitance at 4.0V, 1MHz	C_J	8.0							PF

NOTE1: $I_F = 0.5\text{A}$, $I_R = 1.0\text{A}$, $I_{RR} = 0.25\text{A}$

NOTE2: 8.0mm²(.013mm thick) land areas



TYPICAL CHARACTERISTICS

T_A = 25°C unless otherwise noted

Figure 1. Forward Current Derating Curve

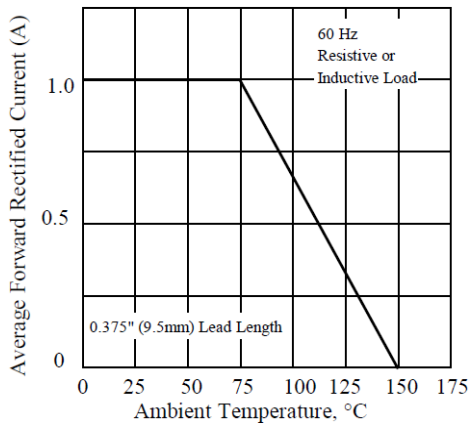


Figure 3. Typical Instantaneous Forward Characteristics

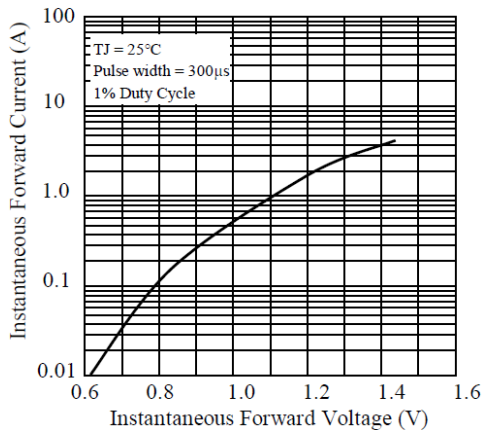


Figure 5. Typical Transient Thermal Impedance

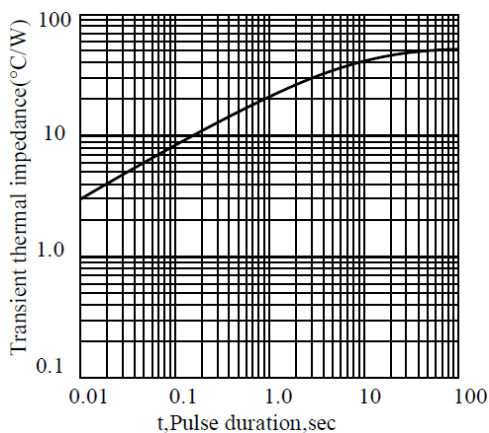


Figure 2. Maximum Non-repetitive Peak Forward Surge Current

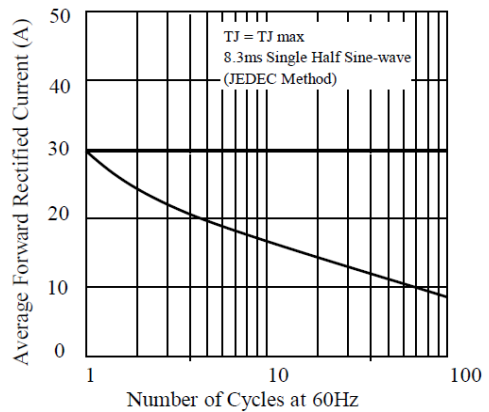


Figure 4. Typical Reverse Characteristics

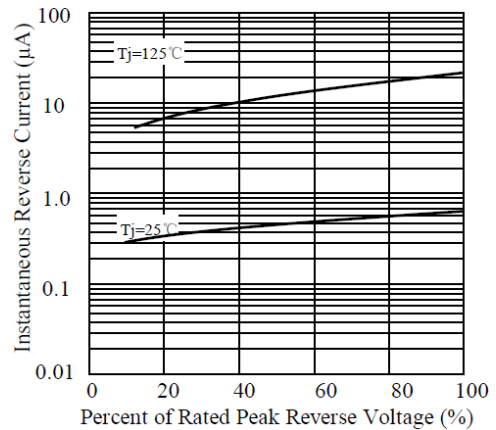
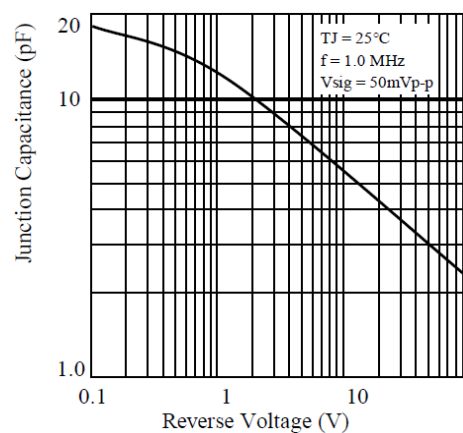


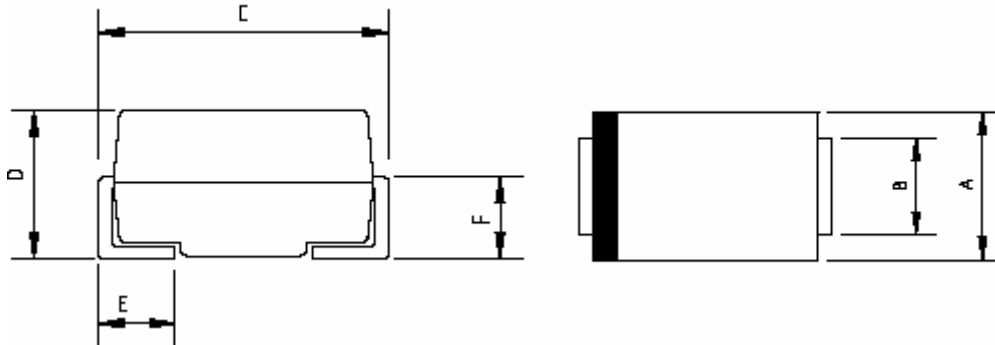
Figure 6. Typical Junction Capacitance



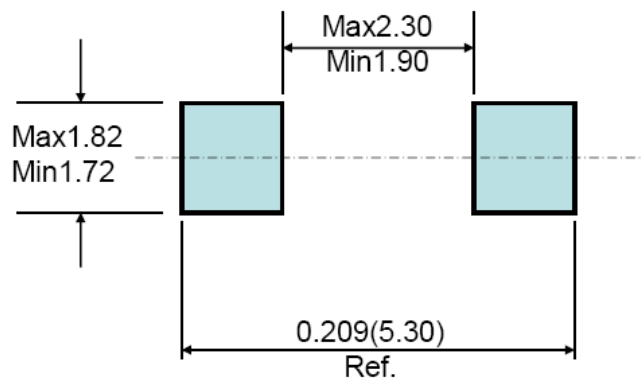


PACKAGE INFORMATION

Dimension in SMA Package (Unit: mm)



Mounting Pad Layout
---SMA



DIM	MILLIMETERS		INCHES	
	MIN	MAX	MIN	MAX
A	2.20	2.80	0.086	0.110
B	1.30	1.70	0.051	0.067
C	4.70	5.30	0.185	0.209
D	1.70	2.55	0.067	0.100
E	0.90	1.50	0.035	0.059
F	0.90	1.50	0.035	0.059



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