DESCRIPTION

The FM401~FM407 are available in SMA package

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°C with no thermal runaway
- Typical IR less than 1.0μA
- High temperature soldering guaranteed: 260°C/10 seconds
- RoHS Compliant
- 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

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°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							°C/W
Operating junction and storage temperature range	T_J, T_{STG}	–50 to +150							°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°C at rated DC blocking voltage T_A = 125°C	I_R	5.0 50							μA
Typical junction capacitance at 4.0V, 1MHz	C_J	8.0							PF

NOTE1: I_F = 0.5A, I_R = 1.0A, I_{RR} = 0.25A
NOTE2: 8.0mm²(.013mm thick) land areas

TYPICAL CHARACTERISTICS

T_A = 25°C unless otherwise noted

Figure 1. Forward Current Derating Curve

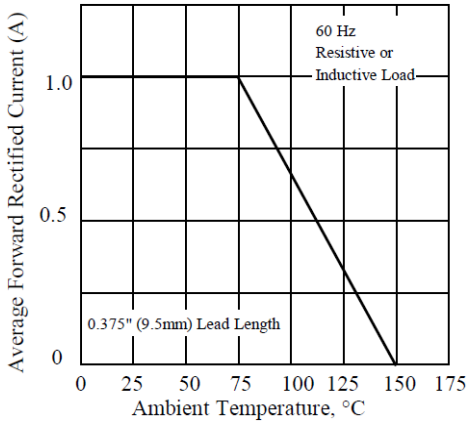


Figure 2. Maximum Non-repetitive Peak Forward Surge Current

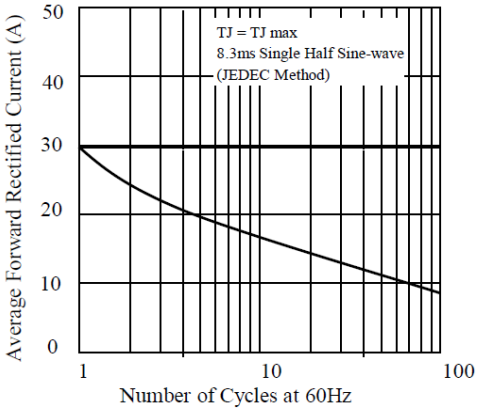


Figure3. Typical Instantaneous Forward Characteristics

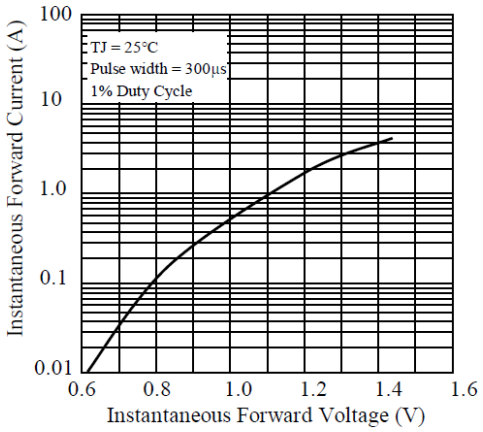


Figure 4. Typical Reverse Characteristics

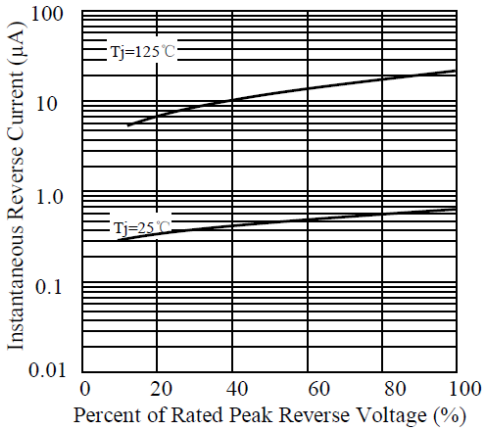


Figure 5. Typical Transient Thermal Impedance

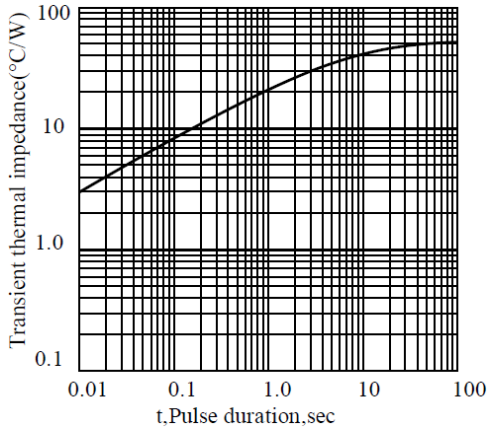
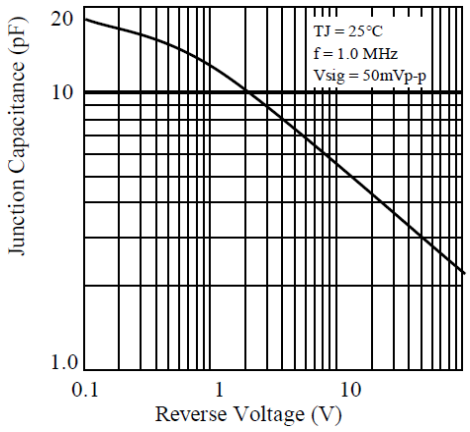
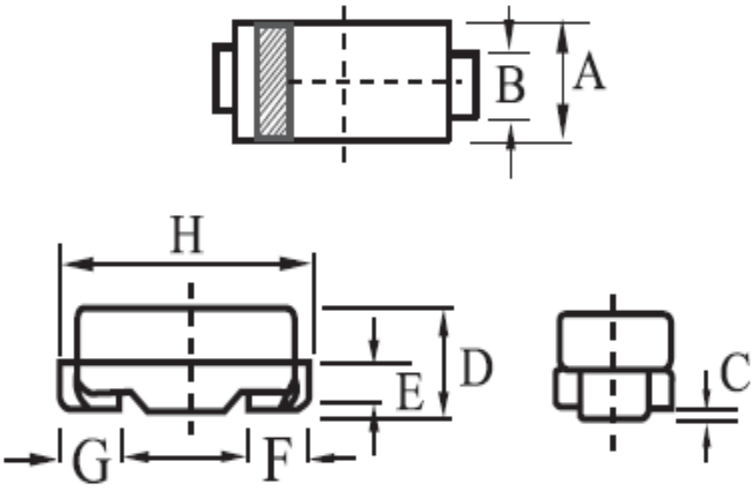


Figure 6. Typical Junction Capacitance



PACKAGE INFORMATION

Dimension in SMA Package (Unit: mm)



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	-	0.20	-	0.008
D	1.70	2.55	0.067	0.100
E	0.20	1.30	0.008	0.051
F	0.90	1.50	0.035	0.059
G	0.90	1.50	0.035	0.059
H	4.70	5.30	0.185	0.209

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