



DESCRIPTION

The HFM101~ HFM108 are available in SMA Package.

ORDERING INFORMATION

Package Type	Part Number
SMA	HFM101
	HFM102
	HFM103
	HFM104
	HFM105
	HFM106
	HFM107
	HFM108
Note	5,000pcs/Reel
AiT provides all RoHS Compliant Products	

PIN DESCRIPTION



FEATURES

- Plastic package has Underwriters Laboratories Flammability Classification 94V-0
- Ideally suited for use in very high frequency switching
- power supplies, inverters and as free wheeling diodes
- Ultrafast recovery time for high efficiency
- Excellent high temperature switching
- Soft recovery characteristics
- Cavity-free glass passivated junction
- High temperature soldering guaranteed: 260°C/10 seconds, 0.375" (9.5mm) lead length, 5 lbs. (2.3kg) tension
- Available in SMA Package

MECHANICAL DATA

Case: JEDEC DO-214AC,
molded plastic over glass die
Terminals: Plated axial leads, solderable per MIL-STD-750, Method 2026
Polarity: Color band denotes cathode end
Mounting Position: Any
Weight: 0.0026oz., 0.075g
Handling Precautin: None



ELECTRICAL CHARACTERISTICS

At 25°C ambient temperature unless otherwise specified.

Maximum Ratings & Thermal Characteristics Ratings										
Parameter Symbol	symbol	HFM 101	HFM 102	HFM 103	HFM 104	HFM 105	HFM 106	HFM 107	HFM 108	Unit
Maximum repetitive peak reverse voltage	V_{RRM}	50	100	200	300	400	600	800	1000	V
Maximum RMS voltage	V_{RMS}	35	70	140	210	280	420	560	700	V
Maximum DC blocking voltage	V_{DC}	50	100	200	300	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 full load reverse current, full cycle average, 0.375" (9.5mm) lead lengths at $T_A = 55^\circ\text{C}$	$I_{R(AV)}$	100								μA
Typical thermal resistance NOTE 2	$R_{\theta JA}$	50								$^\circ\text{C/W}$
Operating junction and storage temperature range	T_J, T_{STG}	-50 to +150								$^\circ\text{C}$

At 25°C ambient temperature unless otherwise specified.

Electrical Characteristics Ratings											
Parameter Symbol	symbol	HFM 101	HFM 102	HFM 103	HFM 104	HFM 105	HFM 106	HFM 107	HFM 108	Unit	
Maximum instantaneous forward voltage at 1.0A	V_F	1.00		1.30			1.85			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	
		100									
Typical reverse recovery time NOTE 1	t_{rr}	50					75				ns
Typical junction capacitance at 4.0V, 1MHz	C_J	17								PF	

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

NOTE2: Thermal resistance from junction to ambient at 0.375" (9.5mm) lead length, P.C.B. mounted



TYPICAL CHARACTERISTICS

$T_A = 25^\circ\text{C}$ unless otherwise specified.
Fig. 1 Forward Current Derating Curve

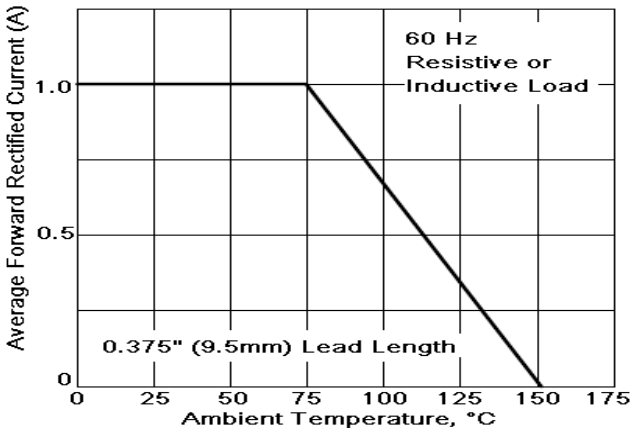


Fig 3. Typical Instantaneous Forward Characteristics

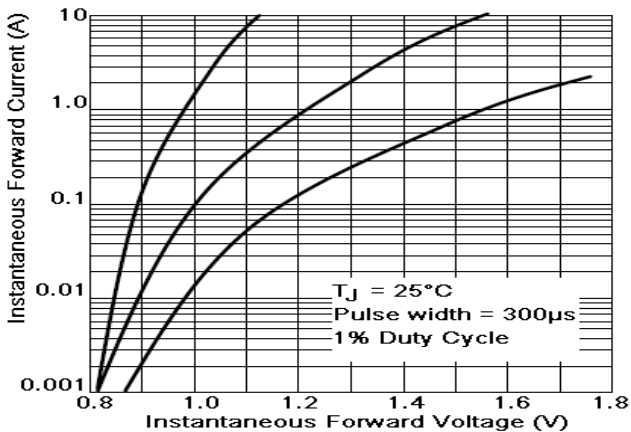


Fig 5. typical transient thermal impedance

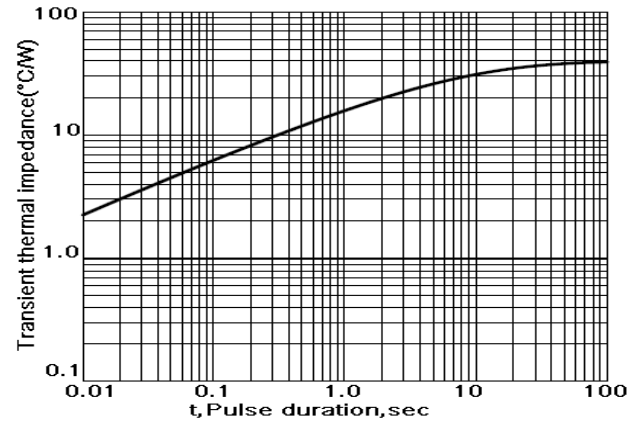


Fig. 2 Maximum Non-repetitive Peak Forward Surge Current

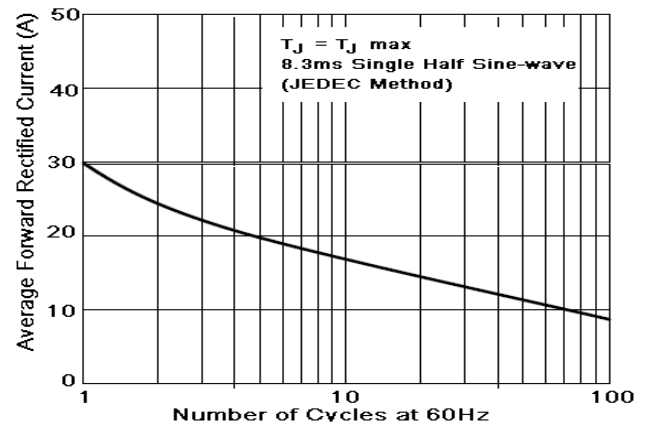


Fig 4. Typical Reverse Characteristics

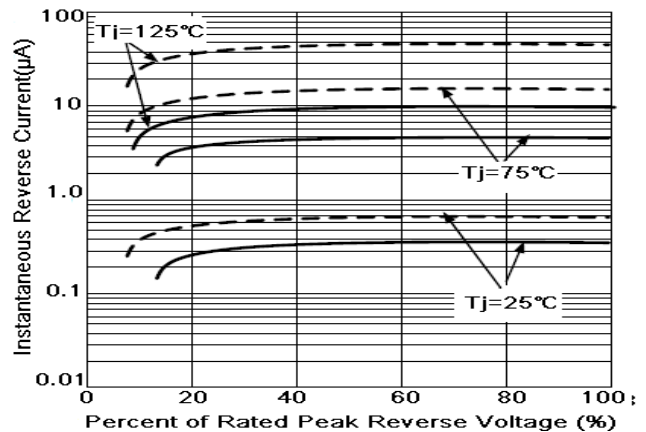
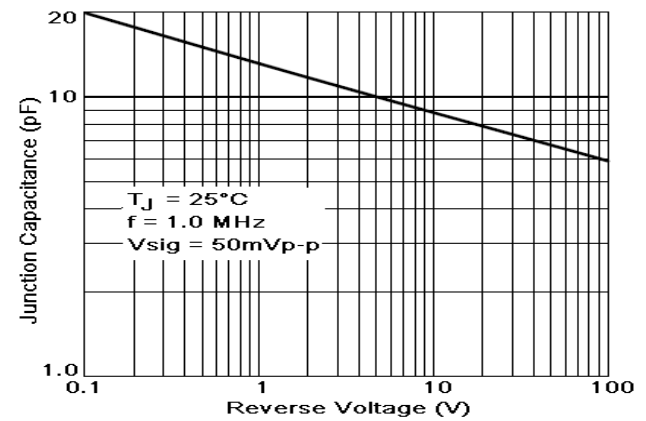


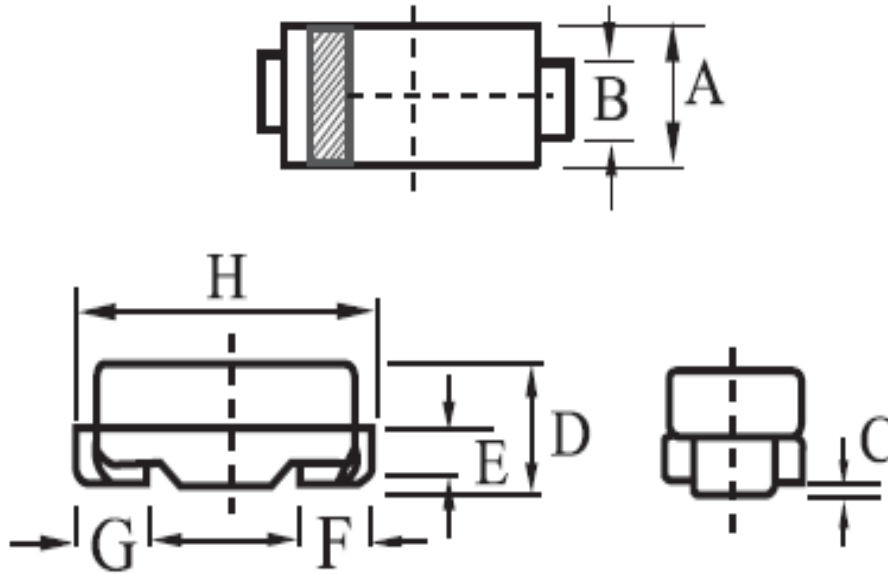
Fig 6. Typical Junction Capacitance





PACKAGE INFORMATION

Dimension in SMA Package (Unit: mm)



DIM	INCHES		MILLIMETERS	
	MIN	MAX	MIN	MAX
A	0.086	0.110	2.20	2.80
B	0.051	0.067	1.30	1.70
C	-	0.008	-	0.20
D	0.067	0.100	1.70	2.55
E	0.008	0.051	0.20	1.30
F	0.035	0.059	0.90	1.50
G	0.185	0.209	4.70	5.30
H	0.035	0.059	0.90	1.50



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