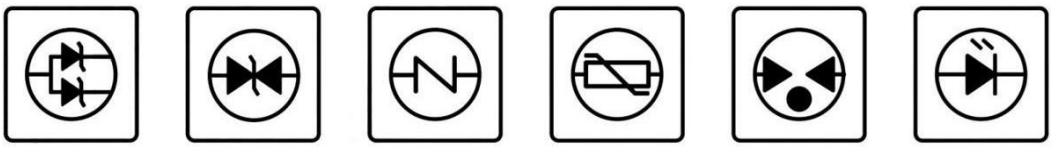
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SEMICONDUCTOR



SM320AF-MS THRU SM3200AF-MS

Product specification

SM320AF-MS THRU SM3200AF-MS

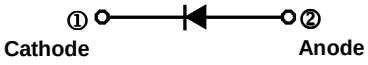
Features

- Ideal for surface mount applications
- Easy pick and place
- Built-in strain relief
- Low forward voltage drop

MECHANICAL DATA

- Metallurgically bonded construction
- Polarity: Color band denotes cathode end
- Case: Molded plastic
- Epoxy: UL94-V0 rate flame retardant
- Weight: 0.032 grams (approximately)

Reference News

SMAF	Schematic Diagram
	

Marking

SM320AF-MS	SM340AF-MS	SM360AF-MS	SM3100AF-MS	SM3150AF-MS	SM3200AF-MS
S32 *	S34 *	S36 *	S310 *	S315 *	S320 *

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

(Rating 25°C ambient temperature unless otherwise specified. Single phase half wave, 60Hz, resistive or inductive load.
For capacitive load, de-rate current by 20%.)

Parameter		Symbol	Part Number						Unit
			SM320AF-MS	SM340AF-MS	SM360AF-MS	SM3100AF-MS	SM3150AF-MS	SM3200AF-MS	
Maximum Recurrent Peak Reverse Voltage		V_{RRM}	20	40	60	100	150	200	V
Working Peak Reverse Voltage		V_{RMS}	14	28	42	70	105	140	V
Maximum DC Blocking Voltage		V_R	20	40	60	100	150	200	V
Maximum Instantaneous Forward Voltage @ 3A		V_F	0.45	0.5	0.7	0.85	0.87	0.9	V
Maximum Average Forward Rectified Current, See Fig.1		I_O	3						A
Peak Forward Surge Current, 8.3ms single half sine-wave superimposed on rated load (JEDEC method)		I_{FSM}	80						A
Maximum Reverse Current [2]	T_C=25℃	I_R	0.5			0.2			mA
	T_C=100℃		10			5			
Typical Thermal Resistance		$R_{\theta JA}$	120						℃/W
Typical Thermal Resistance		$R_{\theta JC}$	90						℃/W
Diode Junction Capacitance (Typ.) [1]		C_J	180		150	110	100	80	pF
Operating Temperature Range		T_J	-50 ~ 125				-50~150		℃
Storage Temperature Range		T_{STG}	-50~150						℃

Notes:1

1. f=1MHz and applied 4V DC reverse voltage
2. Pulse Test : Pulse Width = 300 μs, Duty Cycle ≤ 2.0%.

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RATINGS AND CHARACTERISTIC CURVES

FIG. 1-TYPICAL FORWARD CURRENT DERATING CURVE

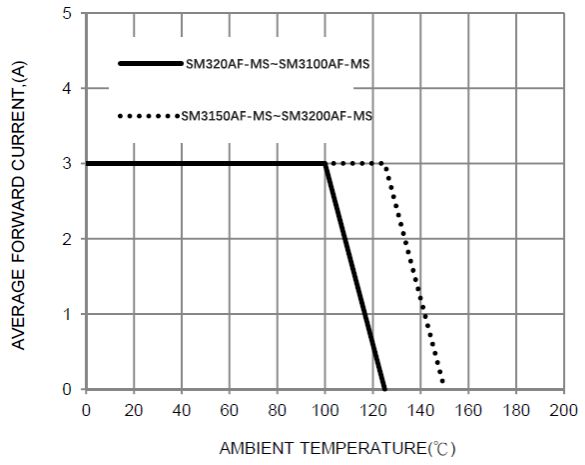


FIG. 2-TYPICAL FORWARD CHARACTERISTICS

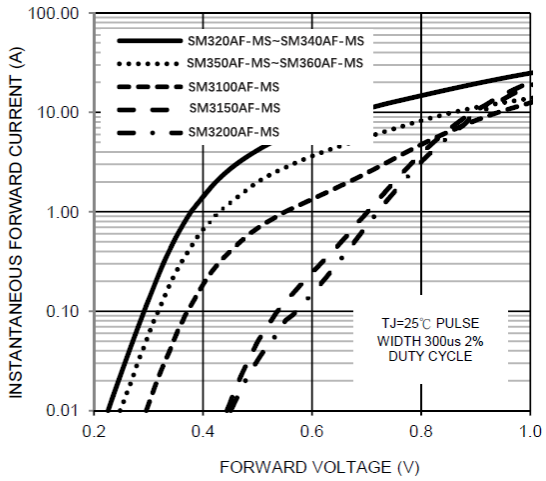


FIG. 3-MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

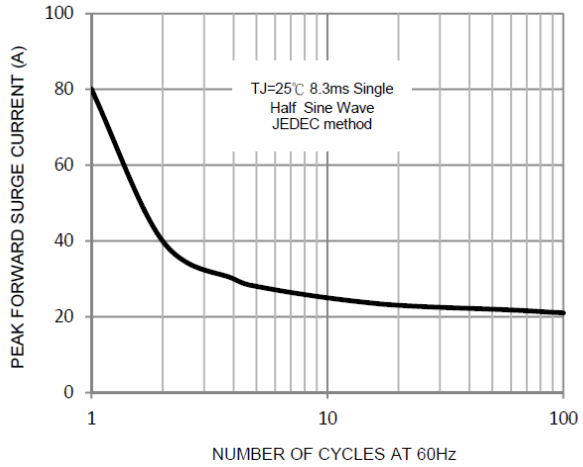


FIG. 4-TYPICAL REVERSE CHARACTERISTICS

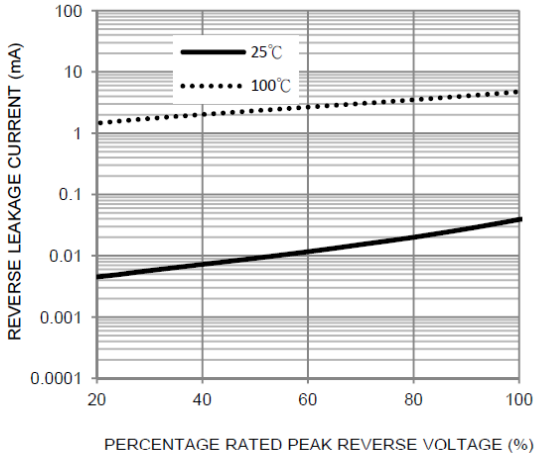
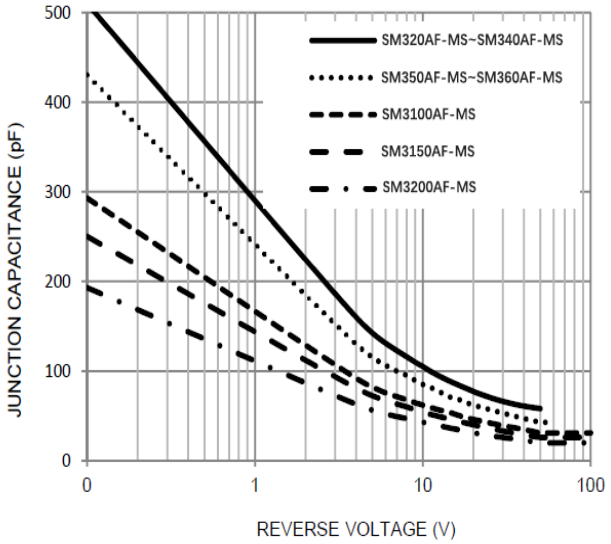
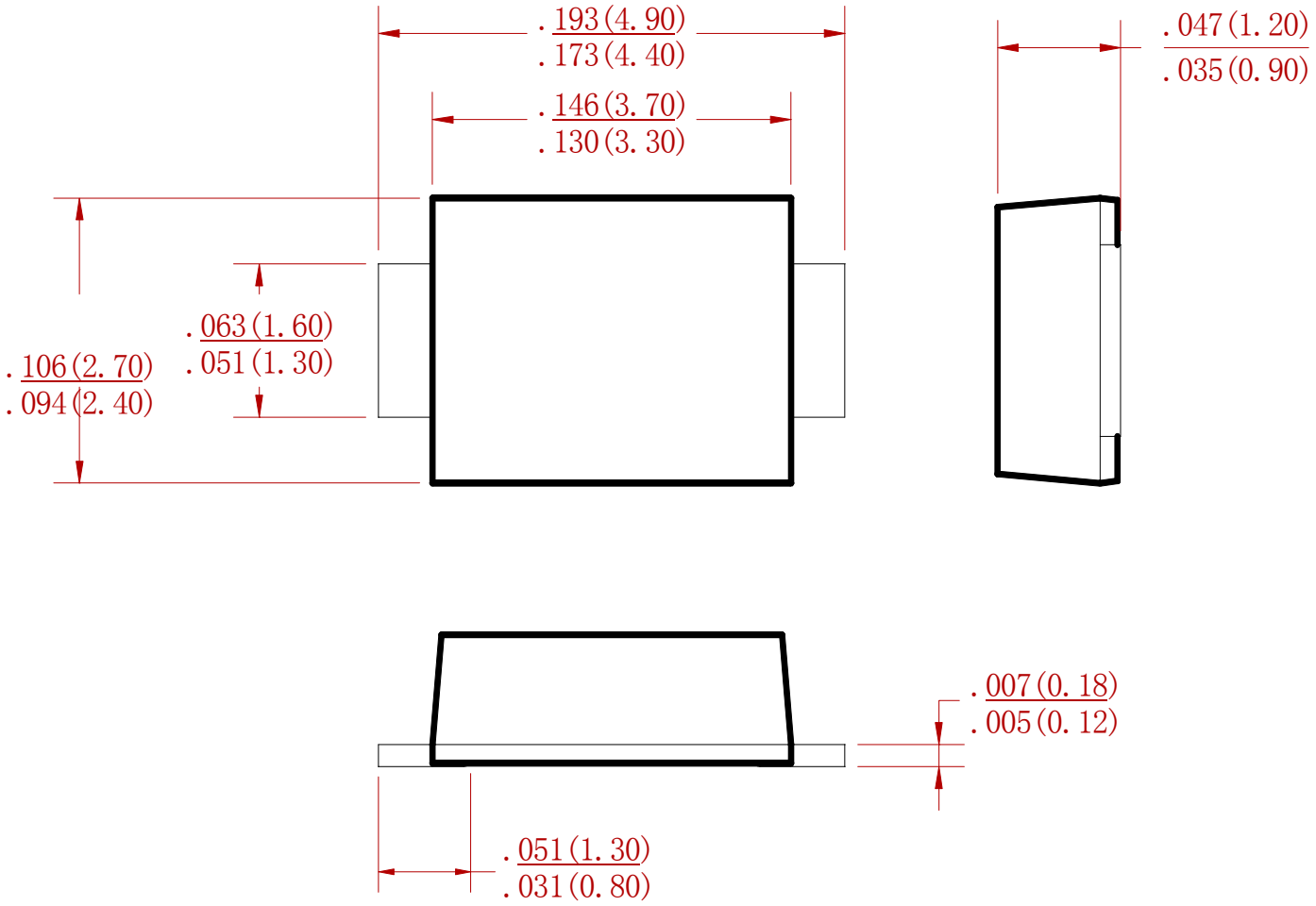


FIG. 5-TYPICAL JUNCTION CAPACITANCE



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PACKAGEMECHANICALDATA



Dimensions in inches and (millimeters)

REEL SPECIFICATION

P/N	PKG	QTY
SM320AF-MS THRU SM3200AF-MS	SMAF	3000

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