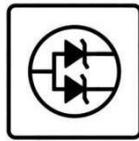
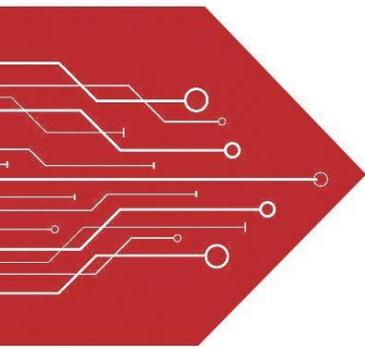
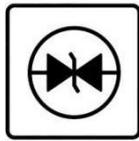


# MSKSEMI

SEMICONDUCTOR



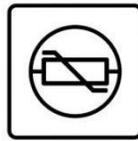
ESD



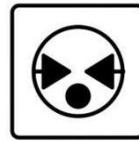
TVS



TSS



MOV



GDT



PLED

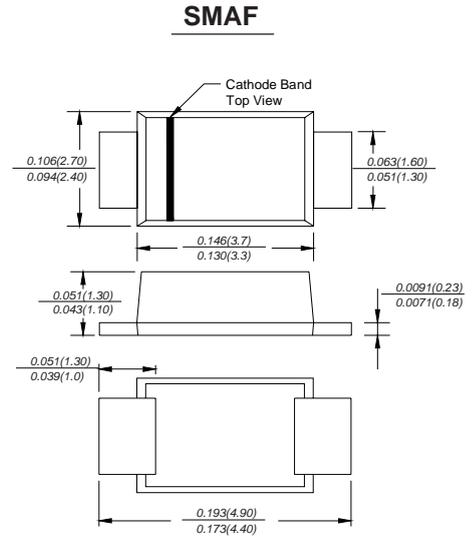
Product data sheet

**FEATURES**

The plastic package carries Underwriters Laboratory  
Flammability Classification 94V-0  
For surface mounted applications  
Low reverse leakage  
Built-in strain relief, ideal for automated placement  
High forward surge current capability  
High temperature soldering guaranteed:  
260°C/10 seconds at terminals  
Glass passivated chip junction

**MECHANICAL DATA**

**Case:** JEDEC SMAF molded plastic body over passivated chip  
**Terminals:** Solder plated, solderable per MIL-STD-750,  
Method 2026  
**Polarity:** Color band denotes cathode end  
**Mounting Position:** Any  
**Weight:** 0.0018 ounce, 0.064 grams



**REEL SPECIFICATION**

P/N	PKG	QTY
M1F THRU M7F	SMAF	3000

**MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS**

Ratings at 25°C ambient temperature unless otherwise specified.  
Single phase half-wave 60Hz, resistive or inductive load, for capacitive load current derate by 20%.

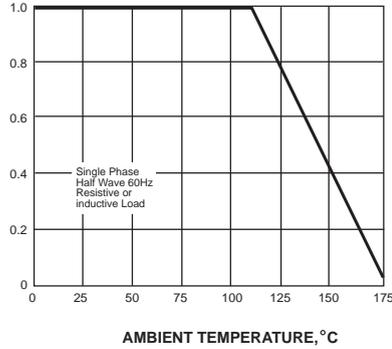
MDD Catalog Number	SYMBOLS	M1F	M2F	M3F	M4F	M5F	M6F	M7F	UNITS
Maximum repetitive peak reverse voltage	V <sub>RRM</sub>	50	100	200	400	600	800	1000	VOLTS
Maximum RMS voltage	V <sub>RMS</sub>	35	70	140	280	420	560	700	VOLTS
Maximum DC blocking voltage	V <sub>DC</sub>	50	100	200	400	600	800	1000	VOLTS
Maximum average forward rectified current at T <sub>L</sub> =75°C	I <sub>(AV)</sub>	1.0							Amp
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC Method)	I <sub>FSM</sub>	30.0							Amps
Maximum instantaneous forward voltage at 1.0A	V <sub>F</sub>	1.1							Volts
Maximum DC reverse current at rated DC blocking voltage T <sub>A</sub> =25°C T <sub>A</sub> =100°C	I <sub>R</sub>	5.0 50.0							μA
Typical junction capacitance (NOTE 1)	C <sub>J</sub>	15.0							pF
Typical thermal resistance (NOTE 2)	R <sub>θJA</sub>	75.0							°C/W
Operating junction and storage temperature range	T <sub>J</sub> , T <sub>STG</sub>	-50 to +150							°C

**Note:** 1. Measured at 1MHz and applied reverse voltage of 4.0V D.C.  
2. P.C.B. mounted with 0.2x0.2"(5.0x5.0mm) copper pad areas

**RATINGS AND CHARACTERISTIC CURVES M1F THRU M7F**

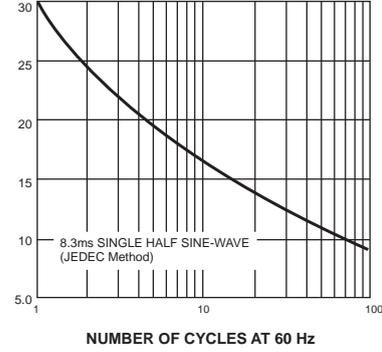
AVERAGE FORWARD RECTIFIED CURRENT, AMPERES

FIG. 1- FORWARD CURRENT DERATING CURVE



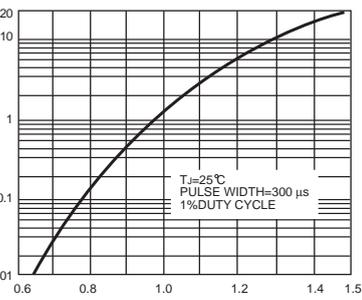
PEAK FORWARD SURGE CURRENT, AMPERES

FIG. 2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT



INSTANTANEOUS FORWARD CURRENT, AMPERES

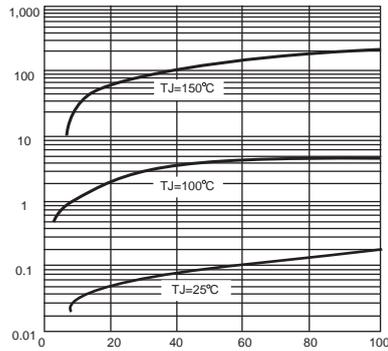
FIG. 3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS



INSTANTANEOUS FORWARD VOLTAGE, VOLTS

INSTANTANEOUS REVERSE CURRENT, MICROAMPERES

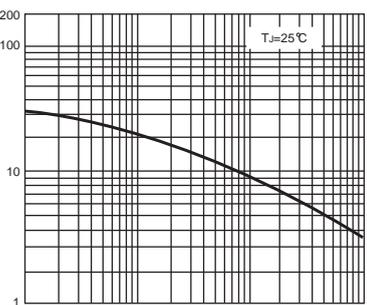
FIG. 4-TYPICAL REVERSE CHARACTERISTICS



PERCENT OF PEAK REVERSE VOLTAGE, %

JUNCTION CAPACITANCE, pF

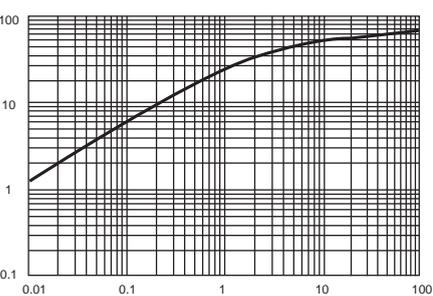
FIG. 5-TYPICAL JUNCTION CAPACITANCE



REVERSE VOLTAGE, VOLTS

TRANSIENT THERMAL IMPEDANCE, °C/W

FIG. 6-TYPICAL TRANSIENT THERMAL IMPEDANCE



t, PULSE DURATION, sec.

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