SR3045M1

SCHOTTKY BARRIER RECTIFIER

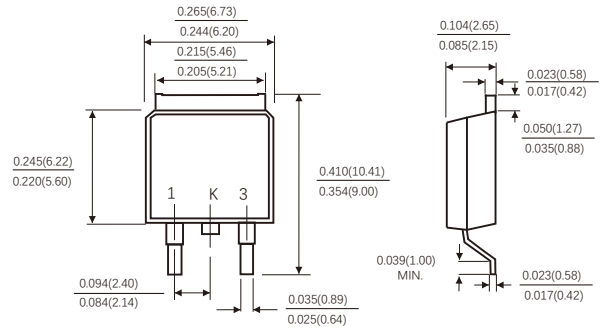
Reverse Voltage - 45Volts
Forward Current - 30Amperes

SEMICONDUCTOR

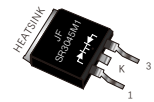
FEATURES

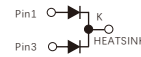
- Plastic package has Underwriters Laboratory Flammability Classification 94V-0
- Metal silicon junction ,majority carrier conduction
- Guard ring for overvoltage protection
- Low power loss ,high efficiency
- High current capability ,Low forward voltage drop
- High surge capability
- For use in low voltage ,high frequency inverters, free wheeling ,and polarity protection applications
- Dual rectifier construction
- High temperature soldering guaranteed:260° C/10 seconds,, 0.25"(6.35mm)from case
- Component in accordance to RoHS 2015/863/EU

TO-252



Dimensions in inches and (millimeters)





MECHANICAL DATA

- Case: JEDEC TO-252 molded plastic body
- Terminals: Lead solderable per MIL-STD-750,method 2026
- Polarity: As marked
- Mounting Position: Any

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

(Ratings at 25°C ambient temperature unless otherwise specified ,Single phase ,half wave ,resistive or inductive load. For capacitive load,derate by 20%.)

Parameters		Symbols	Value	Units
Maximum repetitive peak reverse voltage		VRRM	45	Volts
Maximum RMS voltage		VRMS	31. 5	Volts
Maximum DC blocking voltage		VDC	45	Volts
Maximum average forward rectified current See Fig. 1	Per leg	I(AV)	15. 0	Amps
	Total device		30.0	
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC method) Total device		IFSM	350	Amps
Maximum instantaneous forward voltage at 15.0 A		VF	0. 70	Volts
Maximum instantaneous reverse current at rated DC blocking voltage(Note 1)	TA=25°C	IR	100	μA
	TA=125°C		20	mA
Typical thermal resistance (Note 2)		RθJC	2. 5	°C/W
Operating junction temperature range		TJ	-55 to+150	℃
Storage temperature range		TSTG	-55 to+150	℃

Notes: 1.Pulse test: 300 μ s pulse width,1% duty cycle
2.Thermal resistance from junction to case

FIG.1-FORWARD CURRENT DERATING CURVE

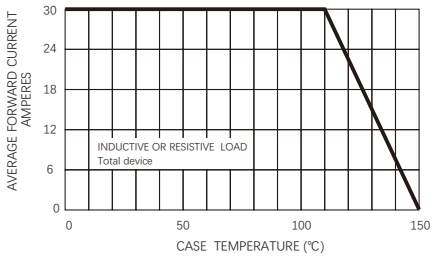


FIG.2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

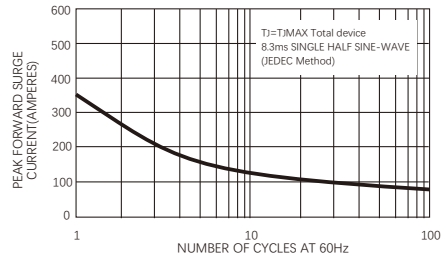


FIG.3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS(Per Leg)

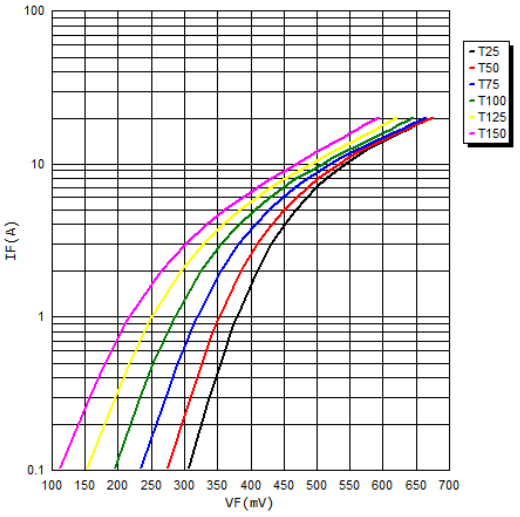
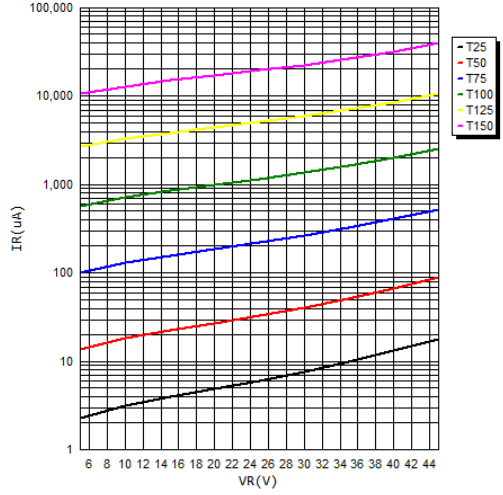


FIG.4-TYPICAL REVERSE CHARACTERISTICS(Per Leg)



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