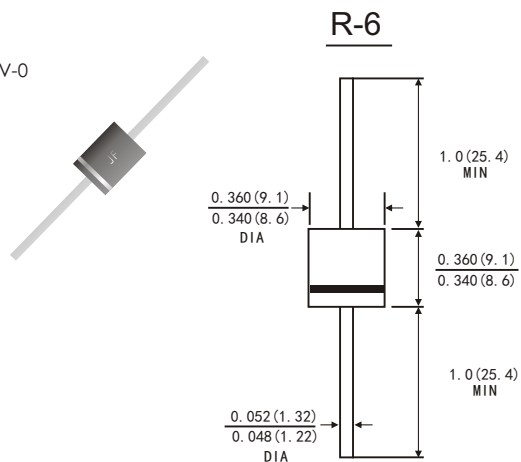


FEATURES

- 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
- High temperature soldering guaranteed:260°C/10 seconds at terminals
- Component in accordance to RoHS 2002/95/EC and WEEE 2002/96/EC

MECHANICAL DATA

- Case: R-6 molded plastic body
- Terminals: Plated axial lead, solderable per MIL-STD-750,method 2026
- Polarity: Color band denotes cathode end
- Mounting Position: Any
- Weight: 0.07ounce, 2.1 grams



Dimensions in inches and (millimeters)

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%.)

	Symbols	15SQ045	Units
Maximum repetitive peak reverse voltage	V _{RRM}	45	Volts
Maximum RMS voltage	V _{RMS}	32	Volts
Maximum DC blocking voltage	V _{DC}	45	Volts
Maximum average forward rectified current 0.375"(9.5mm) lead length(see fig.1)	I(AV)	15.0	Amps
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC method at rated T _J)	I _{FSM}	300	Amps
Maximum instantaneous forward voltage at 15.0 A(Note 1)	V _F	0.55	Volts
Maximum instantaneous reverse current at rated DC blocking voltage(Note 1)	I _R	T _A =25°C	0.3
		T _A =100°C	50
Typical junction capacitance(Note 3)	C _J	400	pF
Typical thermal resistance (Note 2)	R _{θJC}	2.0	°C/W
Operating junction temperature range at reduced reverse voltage V _R <=80%V _{RRM} V _R <=50%V _{RRM} in DC forward model	T _J	-65 to+150	°C
		-65 to+175	
		-65 to+200	
Storage temperature range	T _{STG}	-65 to+200	°C

- Notes:**
- 1.Pulse test: 300μs pulse width,1% duty cycle
 - 2.Thermal resistance from junction to case
 - 3.Measured at 1MHz and reverse voltage of 4.0 volts

RATINGS AND CHARACTERISTIC CURVES 15SQ045

FIG.1-FORWARD CURRENT DERATING CURVE

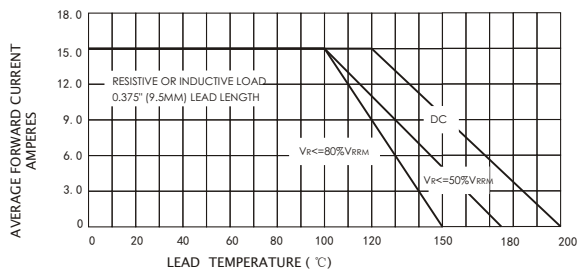


FIG.2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

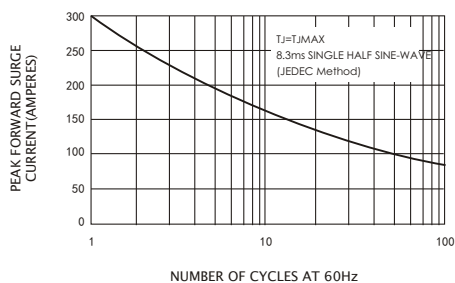


FIG.3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

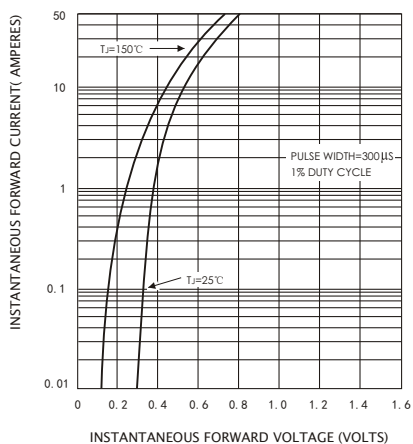


FIG.4-TYPICAL REVERSE CHARACTERISTICS

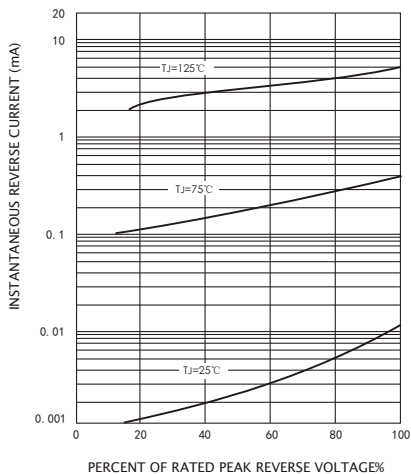


FIG.5-TYPICAL JUNCTION CAPACITANCE

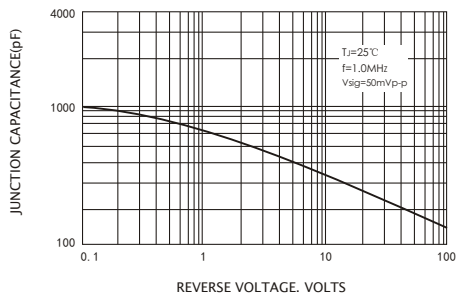


FIG.6-TYPICAL TRANSIENT THERMAL IMPEDANCE

