

10SQ030 THRU 10SQ100

10.0 AMP SCHOTTKY BARRIER RECTIFIERS



FEATURES

- Metal of silicon rectifier , majority carrier conduction
- Guard ring for transient protection
- Low power loss,high efficiency
- High current capability,low VF
- High surge capacity
- Plastic package has UL flammability classification 94V-0
- For use in low voltage,high frequency inverters,free wheeling,and polarity protection applications

MECHANICAL DATA

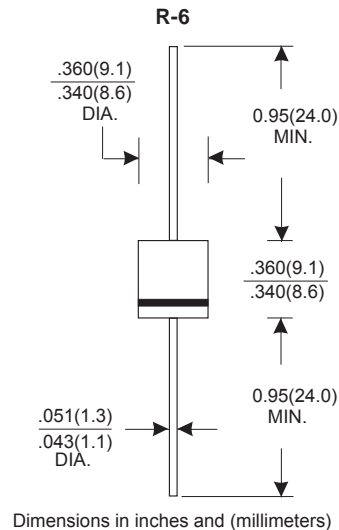
- Case: R-6 molded plastic body
- Terminals: Plated axial lead, solderable per MIL-STD-750,method 2026
- Polarity: Color band denotes cathode end
- Mounting Position: Any
- Weight: 0.07ounce, 2.0 grams
- Lead Free Finish/RoHS Compliant

VOLTAGE RANGE

30 TO 100 Volts

CURRENT

10.0 Amperes



MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Rating at 25°C ambient temperature unless otherwise specified.

Single phase, half wave ,60Hz, resistive or inductive load.

For capacitive load, derate current by 20%

CHARACTERISTICS	SYMBOL	10SQ030	10SQ040	10SQ045	10SQ050	10SQ060	10SQ080	10SQ100	UNIT
Maximum Recurrent Peak Reverse Voltage	V _{RRM}	30	40	45	50	60	80	100	V
Maximum RMS Voltage	V _{RMS}	21	28	31.5	35	42	56	70	V
Maximum DC Blocking Voltage	V _{DC}	30	40	45	50	60	80	100	V
Maximum Average Forward Rectified Current@T _c =95 °C	I _(AV)	10							A
Peak Forward Surge Current 8.3ms single half sine-wave super imposed on rated load(JEDEC Method)	I _{FSM}	250							A
Peak Forward Voltage at 10A DC(Note1)	V _F	0.55			0.7		0.8		V
Maximum DC Reverse Current @T _j =25°C at Rated DC Bolcking Voltage @T _j =125°C	I _R	0.1							mA
Typical Junction Capacitance (Note2)	C _J	450							PF
Typical Thermal Resistance (Note3)	R _{θJC}	3.0							°C/w
Junction temperature Range in DC forward mode	T _J	-55 to+150							°C
Storage Temperature Range	T _S	-55 to+150							°C

NOTES:1.300us Pulse Width, 2%Dudy Cycle.

2.Measured at 1.0 MHZ and applied reverse voltage of 4.0VDC.

3.Thermal Resistance Junction to Case.

RATING AND CHARACTERISTIC CURVES 10SQ030 thru 10SQ100

FIG.1-FORWARD CURRENT DERATING CURVE

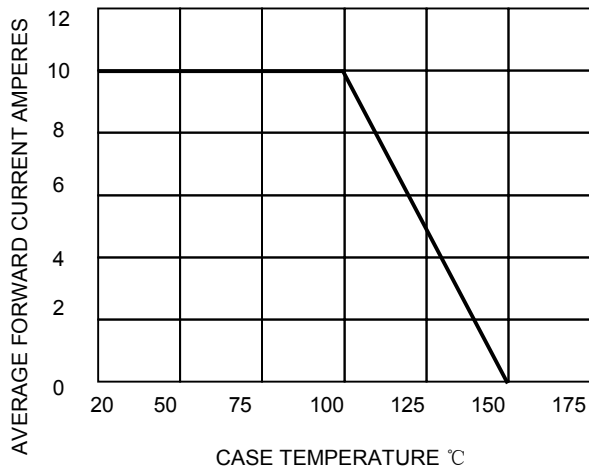


FIG.2-MAXIMUM NON-REPETITIVE SURGE

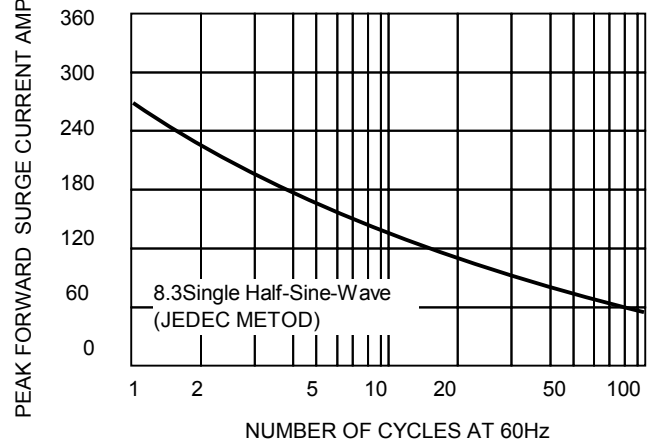


FIG.3-TYPICAL REVERSE CHARACTERISTICS

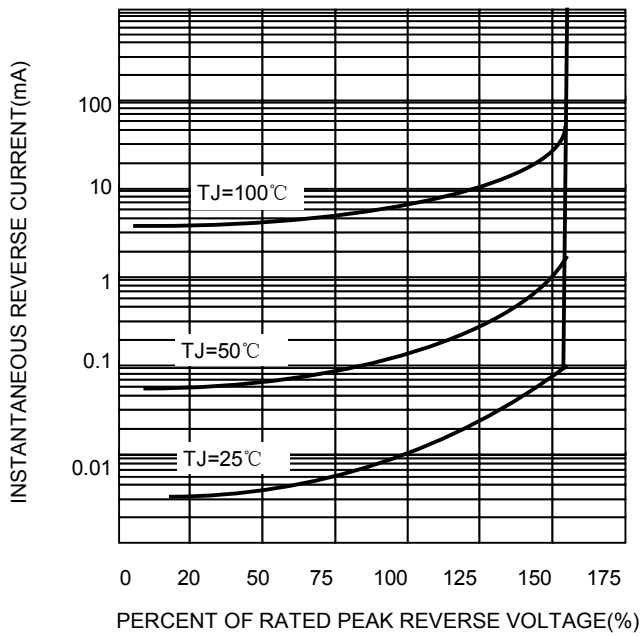


FIG.4-TYPICAL FORWARD CHARACTERISTICS

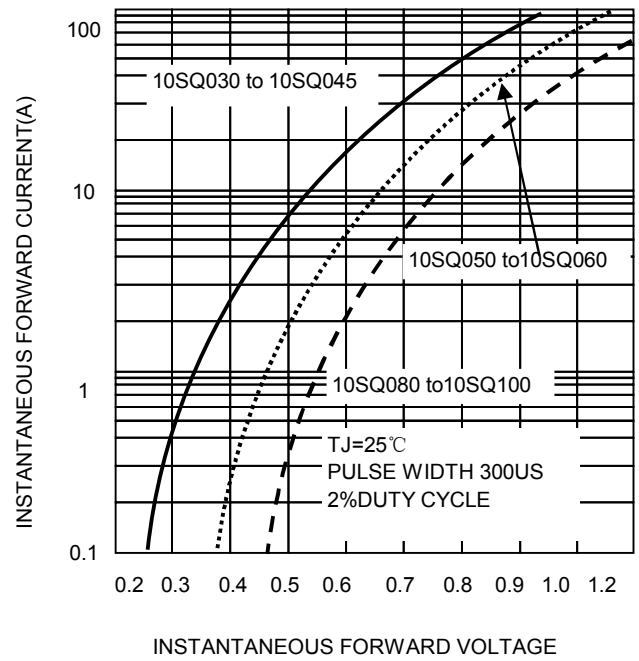


FIG.5-TYPICAL JUNCTION CAPACITANCE

