



10SQ030 THRU 10SQ100

SCHOTTKY BARRIER RECTIFIERS

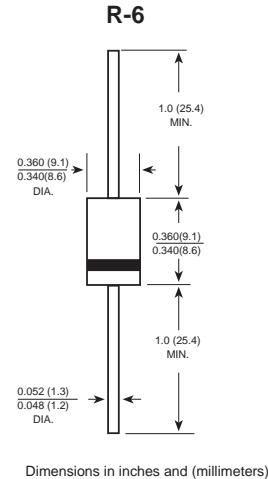
Reverse Voltage 30 - 100 Volts Forward Current - 10 Amperes

FEATURES

The plastic package carries Underwriters Laboratory Flammability Classification 94V-0
 Low power loss, high efficiency
 Ultralow forward voltage, high current capability
 High forward surge current capability
 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 leads, solderable per MIL-STD-750, Method 2026
Polarity: Color band denotes cathode end
Mounting Position: Any
Weight: 0.072 ounce, 2.05 grams



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%.

CHARACTERISTICS	SYMBOL	10SQ030	10SQ035	10SQ040	10SQ045	10SQ050	10SQ060	10SQ080	10SQ100	UNIT	
Maximum Recurrent Peak Reverse Voltage	V _{RRM}	30	35	40	45	50	60	80	100	V	
Maximum RMS Voltage	V _{RMS}	21	24.5	28	31.5	35	42	56	70	V	
Maximum DC Blocking Voltage	V _{DC}	30	35	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}	275								A	
Peak Forward Voltage at 10A DC(Note1)	V _F	0.55			0.7		0.85			V	
Maximum DC Reverse Current @ T _j =25°C at Rated DC Blocking Voltage @ T _j =100°C	I _R	0.5				50					mA
Typical Junction Capacitance (Note2)	C _J	450								PF	
Typical Thermal Resistance (Note3)	R _J	3.0								°C/w	
Operating Temperature Range	T _J	-55 to +200								°C	
Storage Temperature Range	T _{STG}	-55 to +200								°C	

- NOTES: 1. 300us Pulse Width, 2% Duty Cycle.
 2. Measured at 1.0 MHz and applied reverse voltage of 4.0VDC.
 3. Thermal Resistance Junction to Case.



RATINGS AND CHARACTERISTIC CURVES 10SQ030 THRU 10SQ100

FIG.1-FORWARD CURRENT DERATING CURVE

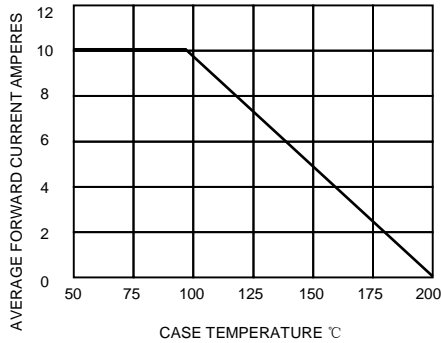


FIG.2-MAXIMUM NON-REPETITIVE SURGE

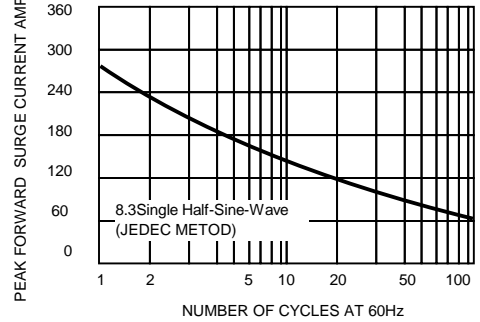


FIG.3-TYPICAL REVERSE CHARACTERISTICS

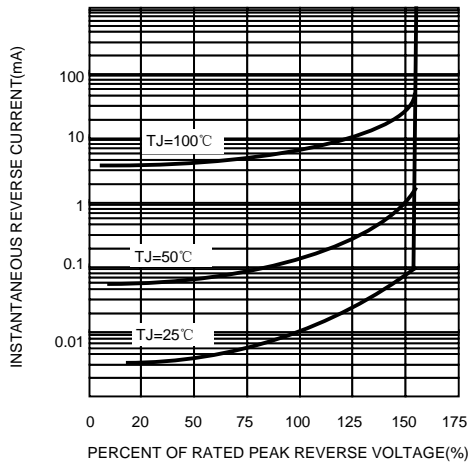


FIG.4-TYPICAL FORWARD CHARACTERISTICS

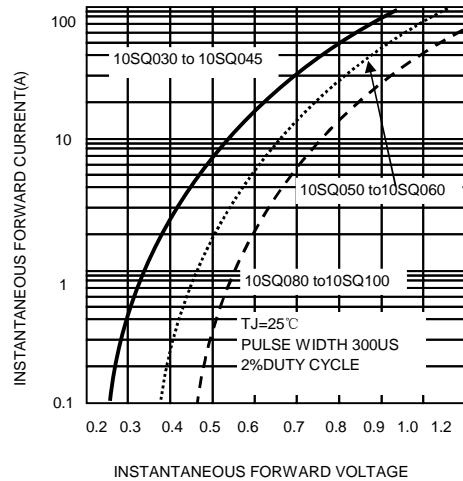


FIG.5-TYPICAL JUNCTION CAPACITANCE

