

10SQ020 THRU 10SQ100

Schottky Barrier Rectifiers

Reverse Voltage - 20 to 100 V

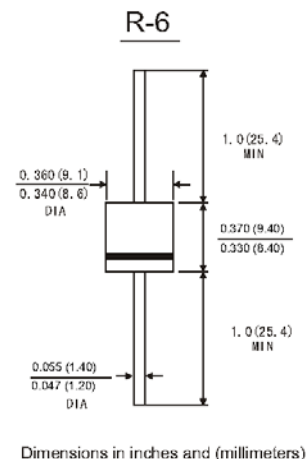
Forward Current - 10 A

Features

- Metal-Semiconductor junction with guard ring
- Low forward voltage drop, low switching losses
- High surge capability
- High current capability, low forward voltage

Mechanical Data

- Case: Molded plastic, R-6
- Epoxy: UL 94V-0 rate flame retardant
- Terminals: Axial leads, solderable per MIL-STD-750, method 2026
- Polarity: As marked
- Mounting Position: Any

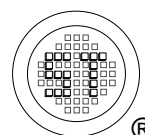


Maximum Ratings and Electrical Characteristics

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

Parameter	Symbols	10SQ 020	10SQ 030	10SQ 040	10SQ 045	10SQ 050	10SQ 060	10SQ 090	10SQ 100	Units
Maximum Recurrent Peak Reverse Voltage	V _{RRM}	20	30	40	45	50	60	90	100	V
Maximum RMS Voltage	V _{RMS}	14	21	28	32	35	42	63	70	V
Maximum DC Blocking Voltage	V _{DC}	20	30	40	45	50	60	90	100	V
Maximum Average Forward Rectified Current at T _A = 25 °C	I _{F(AV)}	10								A
Peak Forward Surge Current 8.3 ms Single Half Sine-Wave Superimposed on Rated Load (JEDEC Method)	I _{FSM}	150								A
Maximum Forward Voltage at 10 A	V _F	0.55				0.7		0.85		V
Maximum Reverse Current T _j = 25 °C at Rated DC Blocking Voltage T _j = 100 °C	I _R	0.5 50								mA
Typical Thermal Resistance ¹⁾	R _{θJL}	14								°C/W
Operating Junction Temperature Range	T _j	- 55 to + 150								°C
Storage Temperature Range	T _{stg}	- 55 to + 150								°C

¹⁾ Thermal resistance from junction to lead.



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FIG.1 -- PEAK FORWARD SURGE CURRENT

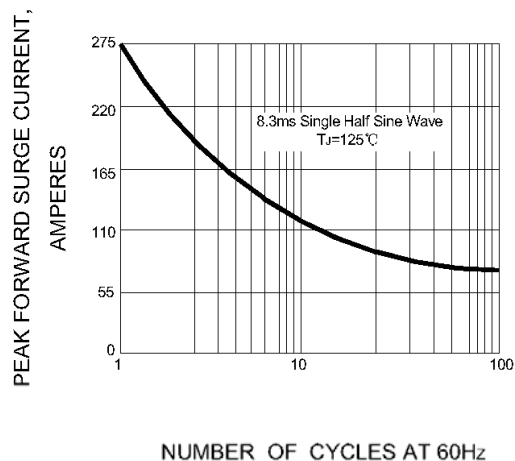


FIG.2 -- FORWARD DERATING CURVE

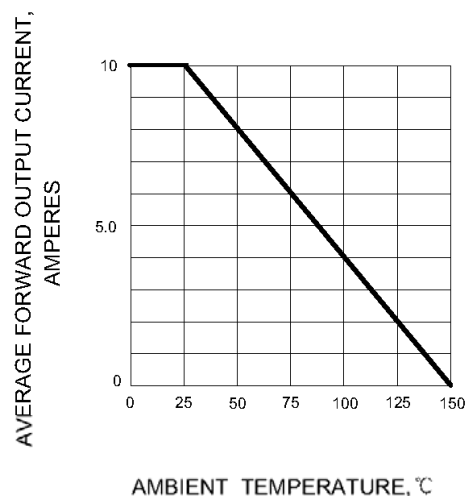


FIG.3 -- TYPICAL FORWARD CHARACTERISTIC

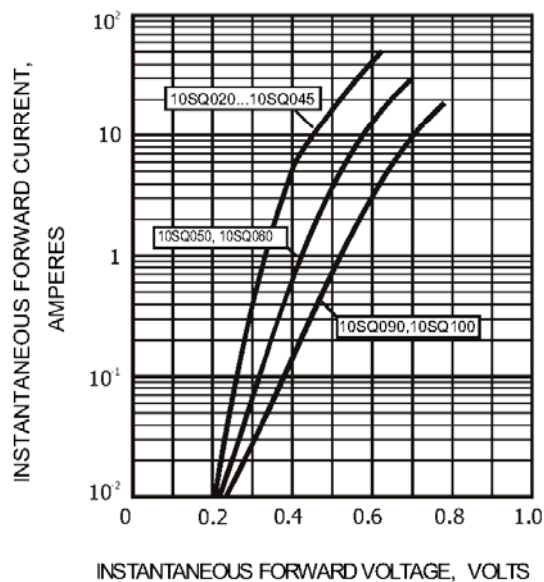


FIG.4 -- TYPICAL REVERSE CHARACTERISTIC

