

10SQ030~10SQ100

10.0Amp Schottky Barrier Rectifiers

Features

- ◆ The plastic package carries Underwriters Laboratory Flammability Classification 94V-0
- ◆ Metal silicon junction,majority carrier conduction
- ◆ Low power loss,high efficiency
- ◆ High forward surge current capability
- ◆ High temperature soldering guaranteed:
250°C/10 seconds,0.375"(9.5mm) lead length,
5 lbs. (2.3kg) tension

Mechanical Data

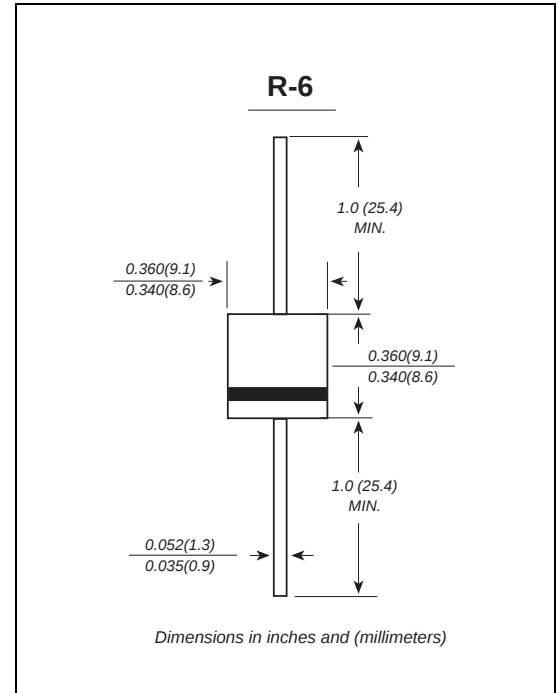
Case: JEDEC R-6 molded plastic body

Terminals: Plated axial leads, solderable per MIL-STD-750, Method 2026

Polarity: Color band denotes cathode end

Mounting Position: Any

Weight: 0.072 ounce, 2.05grams



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%.

	SYMBOLS	10SQ030	10SQ035	10SQ040	10SQ045	10SQ060	10SQ080	10SQ100	UNITS
Maximum repetitive peak reverse voltage	V _{RRM}	30	35	40	45	60	80	100	VOLTS
Maximum RMS voltage	V _{RMS}	21	24.5	28	31.5	42	56	70	VOLTS
Maximum DC blocking voltage	V _{DC}	30	35	40	45	60	80	100	VOLTS
Maximum average forward rectified current 0.375”(9.5mm) lead length(see fig.1)	I _(AV)	10.0							Amps
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC Method)	I _{FSM}	275							Amps
Maximum instantaneous forward voltage at 10.0A	V _F	0.55				0.70	0.85		Volts
Maximum DC reverse current T _A =25°C at rated DC blocking voltage T _A =100°C	I _R	0.5							mA
		50.0							
Typical junction capacitance (NOTE 1)	C _J	450							pF
Typical thermal resistance (NOTE 2)	R _{θJA}	40.0							°C/W
Operating junction temperature range	T _J ,	-55 to +150							°C
Storage temperature range	T _{STG}	-55 to +150							°C

Note:1.Measured at 1MHz and applied reverse voltage of 4.0V D.C.

2.Thermal resistance from junction to ambient at 0.375"(9.5mm)lead length,P.C.B. mounted

Ratings And Characteristic Curves

10SQ030 THRU 10SQ100

FIG. 1- FORWARD CURRENT DERATING CURVE

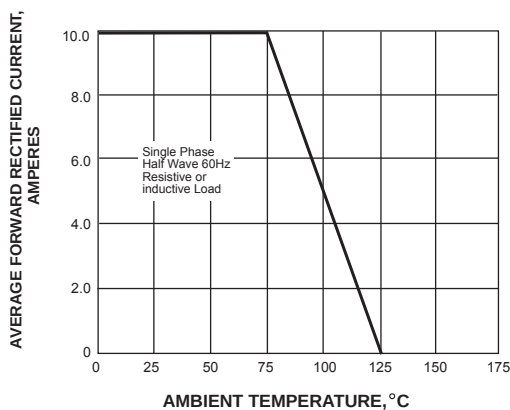


FIG. 2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

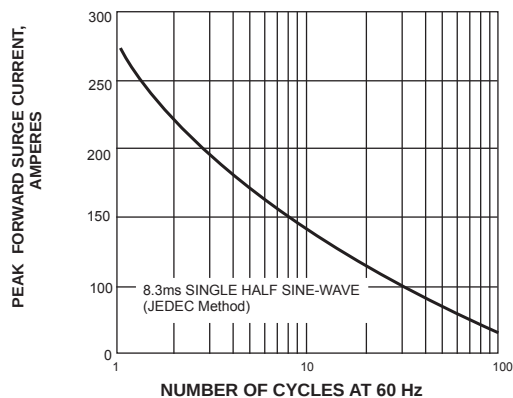


FIG. 3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

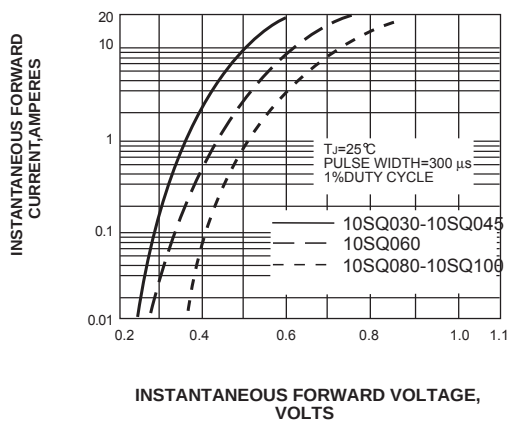


FIG. 4-TYPICAL REVERSE CHARACTERISTICS

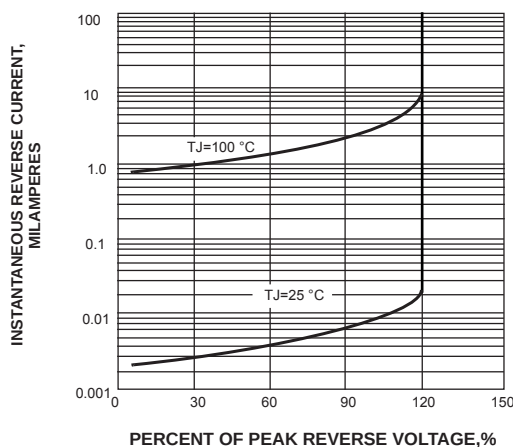


FIG. 5-TYPICAL JUNCTION CAPACITANCE

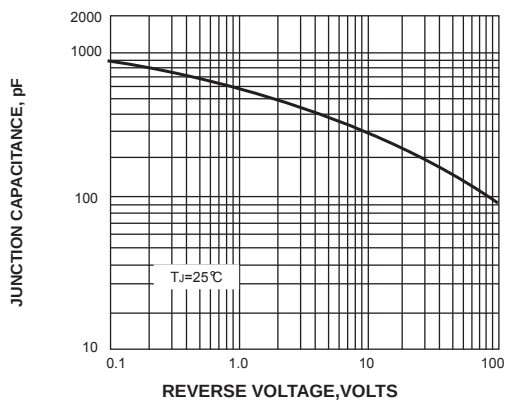


FIG. 6-TYPICAL TRANSIENT THERMAL IMPEDANCE

