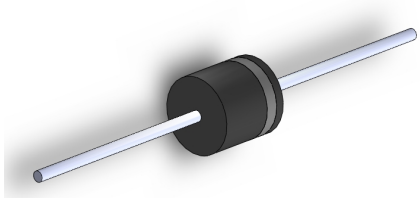
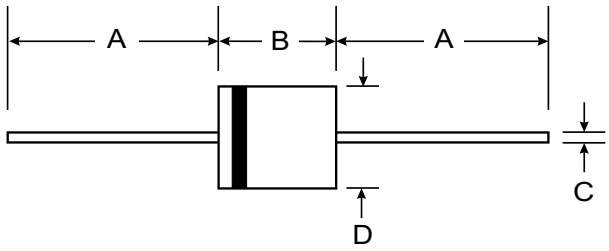
90SQ030 - 90SQ100

SCHOTTKY BARRIER RECTIFIER DIODE

VOLTAGE RANGE: 30 - 100V
CURRENT: 9.0 A





Features

- Metal of silicon rectifier , majority carrier conduction
- Guard ring for transient protection
- Low power loss,high efficiency
- Highcurrent capability,lowVF
- High surge capacity
- Plastic package has UL flammability classification 94V-0

Mechanical Data

- Case:R-6 Molded Plastic
- Terminals: Axial Leads, Solderable per MIL-STD-202, Method 208
- Polarity: Color Band Indicates Cathode
- Approx. Weight: 1.7 grams
- Mounting Position: Any

RoHS COMPLIANT

R-6		
Dim	**Min**	**Max**
A	25.4	—
B	8.6	9.1
C	1.2	1.3
All Dimensions in mm		

Maximum Ratings and Electrical Characteristics T_A = 25°C unless otherwise specified

Single phase, half wave, 60Hz, resistive or inductive load. For capacitive load, derate current by 20%.

Characteristic	SYMBOL	90SQ030	90SQ035	90SQ040	90SQ045	90SQ050	90SQ060	90SQ080	90SQ100	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@Tc=95 ℃	$I_{(AV)}$	9.0								A
Peak Forward Surage Current 8.3ms single half sine-wave super imposed on rated load(JEDEC Method)	I_{FSM}	275								A
Peak Forward Voltage at 9.0ADC(Note1)	V_F	0.55				0.7		0.8		V
Maximum DC Reverse Current @Tj=25℃ at Rated DC Bolcking Voltage @Tj=100℃	I_R	0.5 50								mA
Tyical Junction Capacitance (Note2)	C_J	450								PF
Tyical Thermal Resistance (Note3)	R_{JC}	3.0								℃/w
Operating Temperature Range	T_J	-55 to+150								℃
Storage Temperature Range	T_{STG}	-55 to+150								℃

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.

FIG.1-FORWARD CURRENT DERATING CURVE

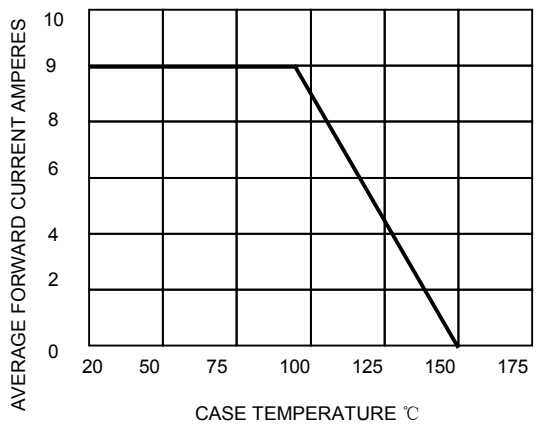


FIG.2-MAXIMUM NON-REPETITVE SURGE

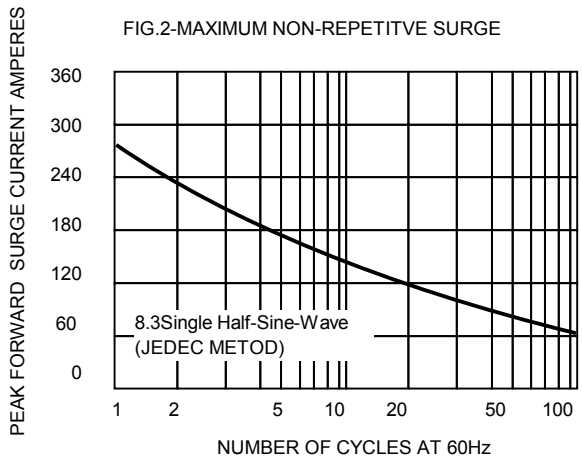


FIG.3-TYPICAL REVERSE CHARACTERISTICS

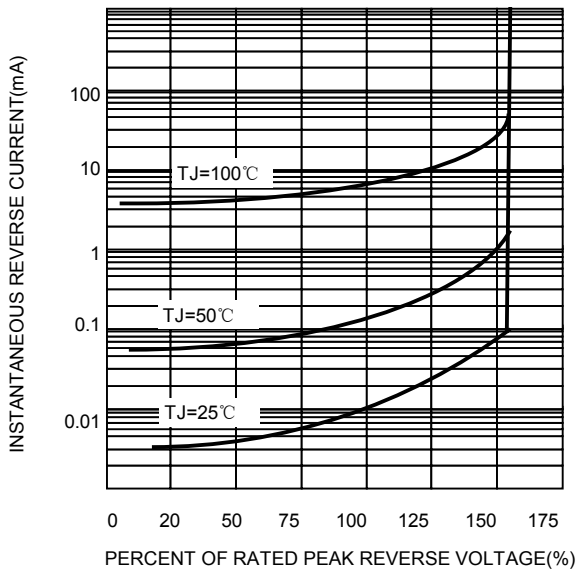


FIG.4-TYPICAL FORWARD CHARACTERISTICS

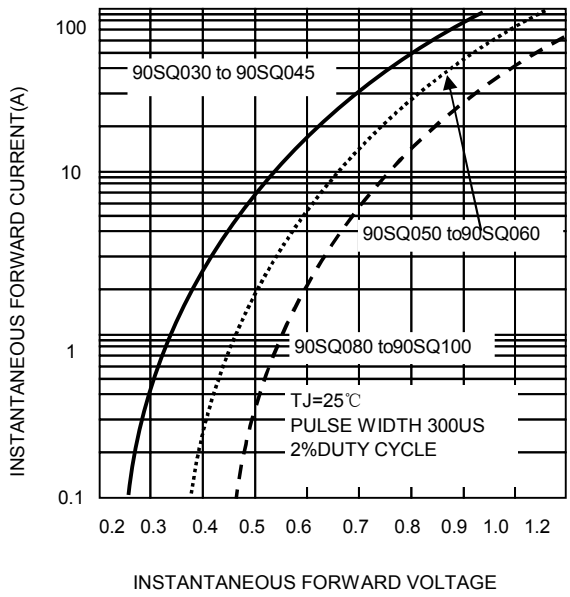


FIG.5-TYPICAL JUNCTION CAPACITANCE