10SQ030 THRU 10SQ100

SCHOTTKY BARRIER RECTIFIERS

REVERSE VOLTAGE -30 to 100Volts
FORWARD CURRENT-10.0 Amperes

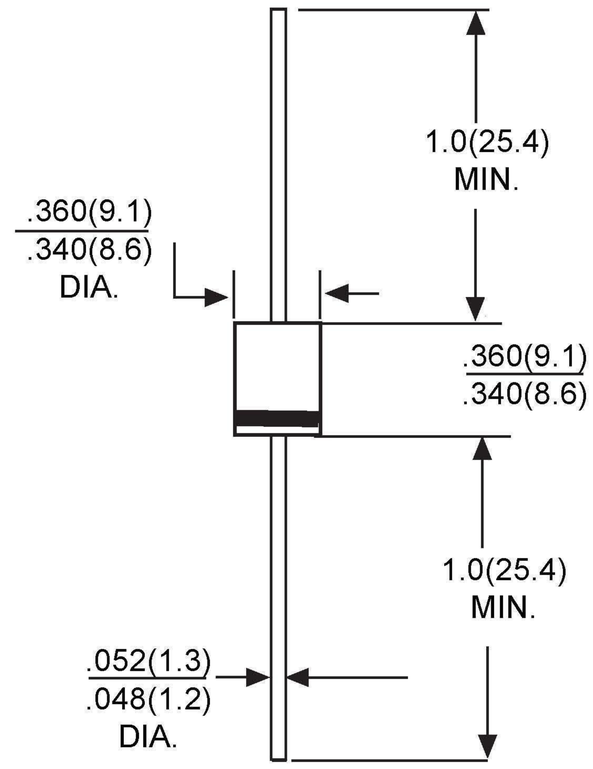
Features

- Metal silicon rectifie,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 low voltage,high frequency inverters,free wheeling,and polarity protection applications

Mechanical Data

- Case:JEDEC R-6 Mo ded plastic
- Polarity:Color band cenotes cathode
- Weight:0.07 ounces 2.1 grams
- Mounting position:Any

R-6



Dimensions in inches and (millimeters)

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%

Type Number	SYMBOL	10SQ030	10SQ035	10SQ040	10SQ045	10SQ050	10SQ060	10SQ080	10SQ100	UNIT
Maximum Repetitive 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_A = 75°C	$I_{F(AV)}$	10								A
Peak Forward Surge Current, 8.3 ms 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		0.8		V
Maximun 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 (Note 2)	C_J	450								pF
Typical Thermal Resistance (Note 3)	$R_{\theta JC}$	3.0								°C/W
Junction temperature- sperrschichttemperatue at reduced reverse voltage $V_R \leq 80\% V_{RRM}$ bei reduzierter sperrspannung $V_R \leq 50\% V_{RRM}$ in DC forward mode-bei GLeichstrom-Durchalss betrieb	T_J	-55 to+150 ≤175 ≤200								°C
Storage Temperature Range	T_{STG}	-55 to+150								

NOTES: 1. 300us Pulse Width,2%Dudy Cyote.
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

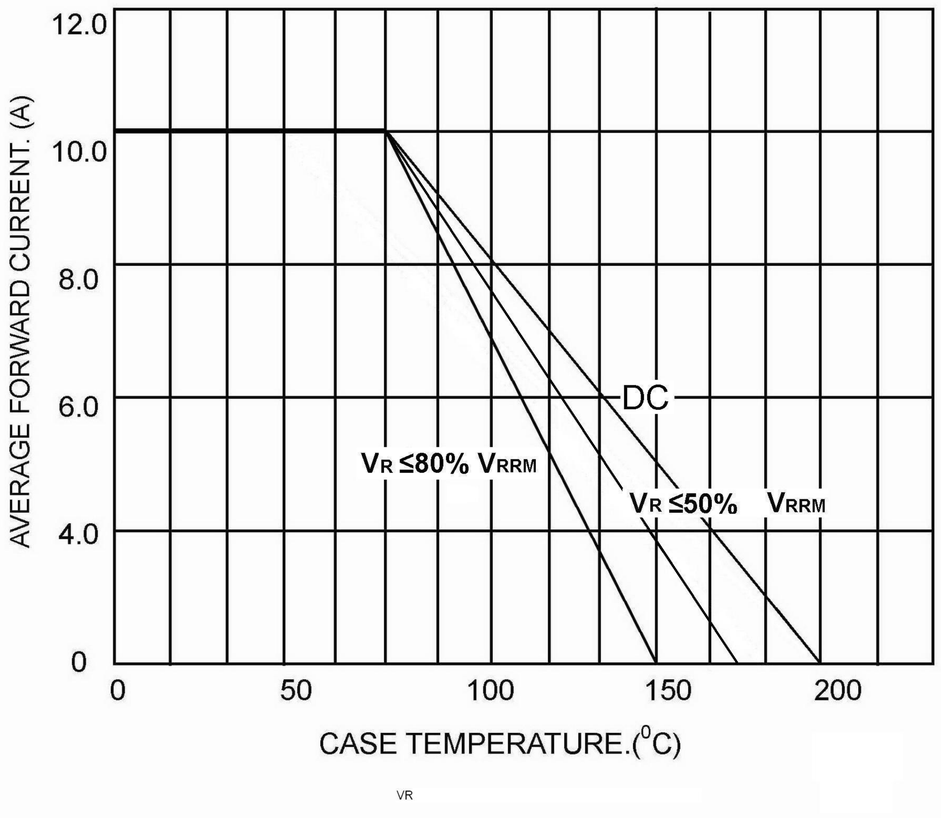


FIG.2- MAXIMUN NON-REPETITIVE SURGE CURRENT

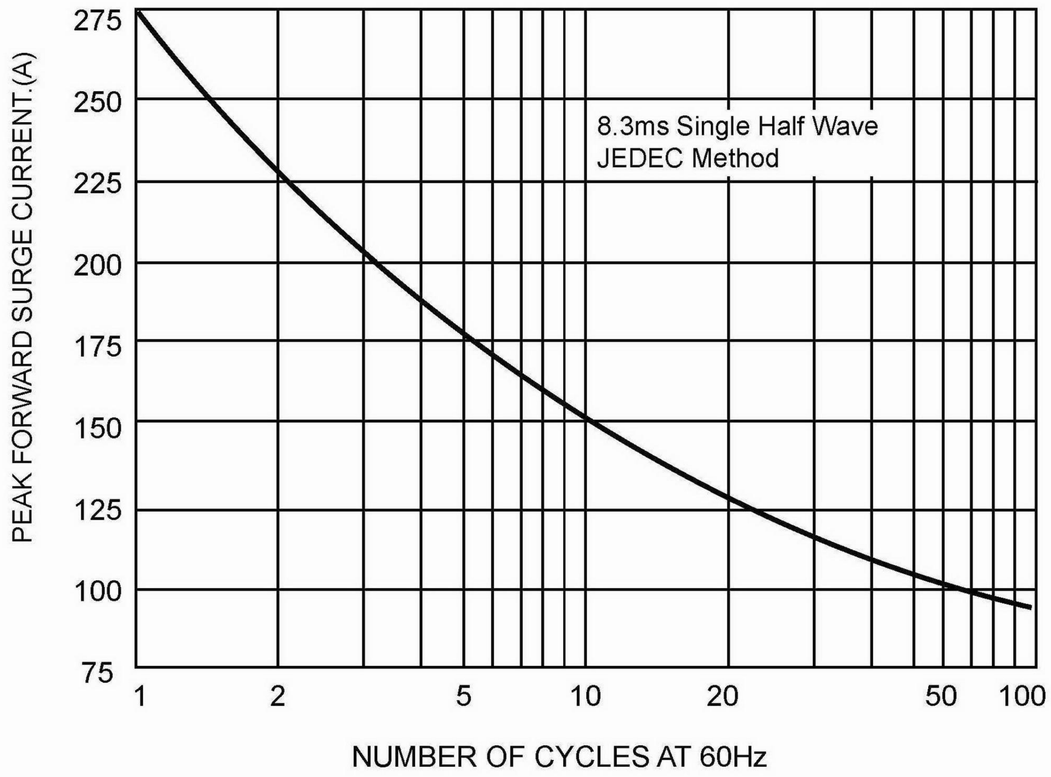


FIG.3-TYPICAL REVERSE CHARACTERISTIC

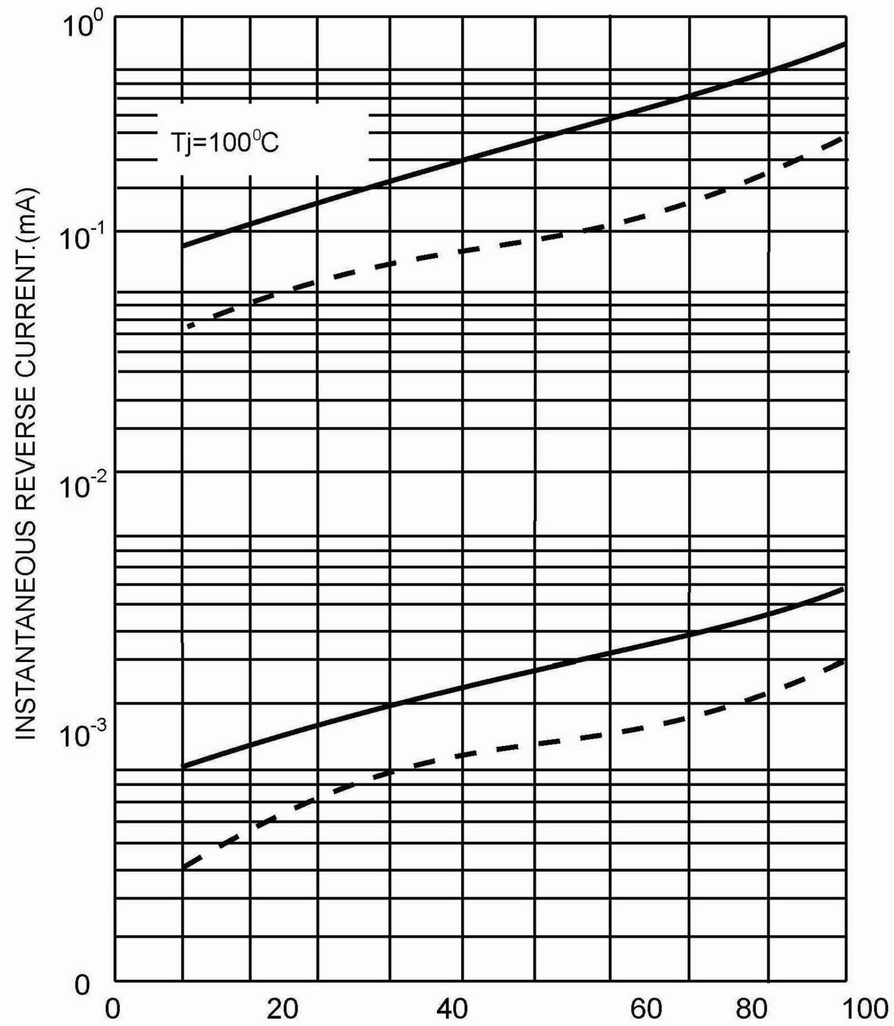


FIG.4-TYPICAL INSTANTANEOVS FORWARD CHARACTERISTIC