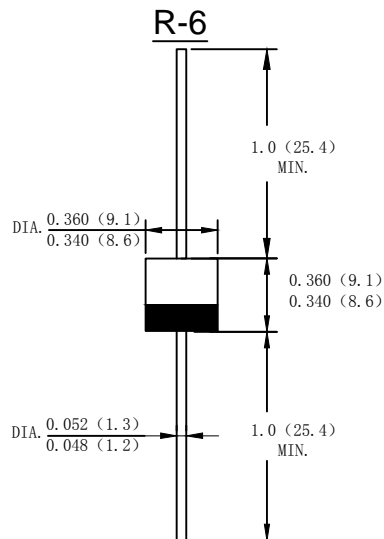


Features

- Metal silicon rectifier,majority carrier conduction
- Guard ring for transient protection
- Low power loss,high efficiency
- High surge capability
- High current capability,low VF
- For use in low voltage,high frequency inverters,free wheeling,and polarity protection applications
- Plastic material-UL flammability 94V-0



Dimensions in inches and (millimeters)

Mechanical Data

- Case: Moeded plastic R-6
- Polarity: Color band dentes cathode end
- Mounting Position: Any

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	12SQ 030	12SQ 035	12SQ 040	12SQ 045	12SQ 060	12SQ 080	12SQ 100	Unit
Maximum Recurrent Peak Reverse Voltage	V_{RRM}	30	35	40	45	60	80	100	V
Maximum RMS Voltage	V_{RMS}	21	24.5	28	31.5	42	56	70	V
Maximum DC Blocking Voltage	V_{DC}	30	35	40	45	60	80	100	V
Maximum Average Forward Rectified Current.375"(9.5mm) lead length@ $T_A=95^\circ C$	I_o	12.0							A
Peak Forward Surge Current 8.3ms Single half sine-wave superimposed on rated load (JEDEC Method)	I_{FSM}	275							A
Forward Voltage @ $I_F=12.0A$ (Note 1)	V_{FM}	0.55			0.7	0.8		V	
Peak Reverse Current @ $T_A=25^\circ C$	I_R	0.3					0.05		mA
At Rated DC Blocking Voltage @ $T_A=100^\circ C$		10					5		
Typical Junction Capacitance (Note2)	C_J	450							pF
Typical Thermal Resistance Junction to case	$R_{\theta JA}$	3.0							$^\circ C/W$
Operating Temperature Range	T_J	-55 to +150							$^\circ C$
/Storage Temperature Range	T_{STG}	-55 to +150							$^\circ C$

Note:1. 300us Pulse Width,2%Duty Cycle

2. Measured at 1.0 MHz and Applied reverse Voltage of 4.0V D.C

12SQ030 THRU 12SQ100

FIG.1-FORWARD CURRENT DERATING CURVE

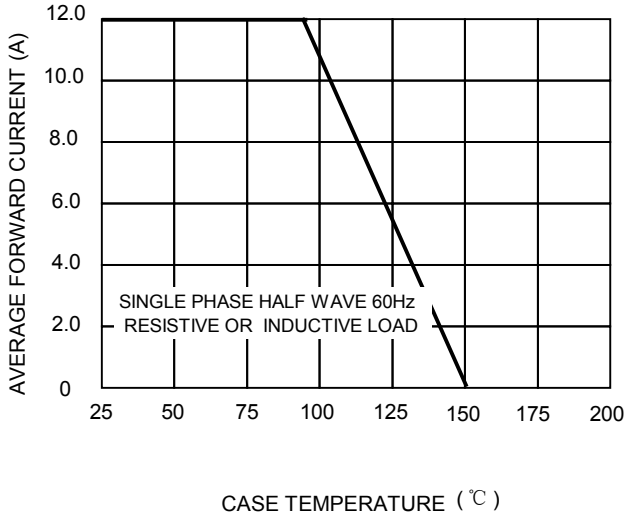


FIG.4-TYPICAL FORWARD CHARACTERISTICS

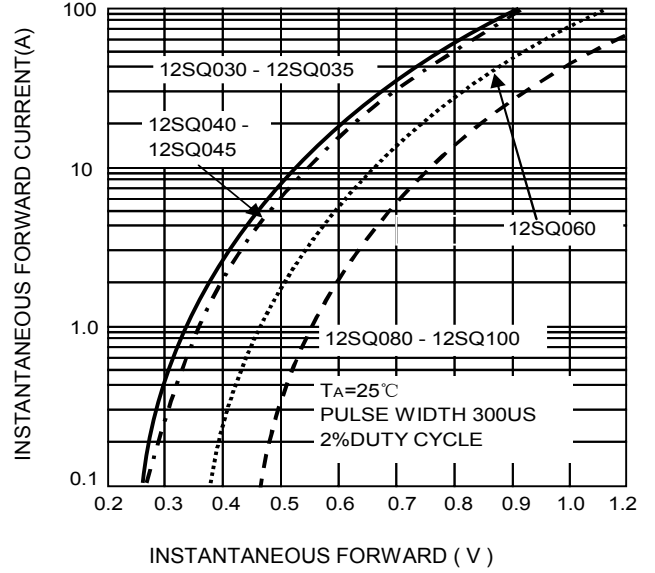


FIG.2 MAXIMUM NON REPETITIVE SURGE

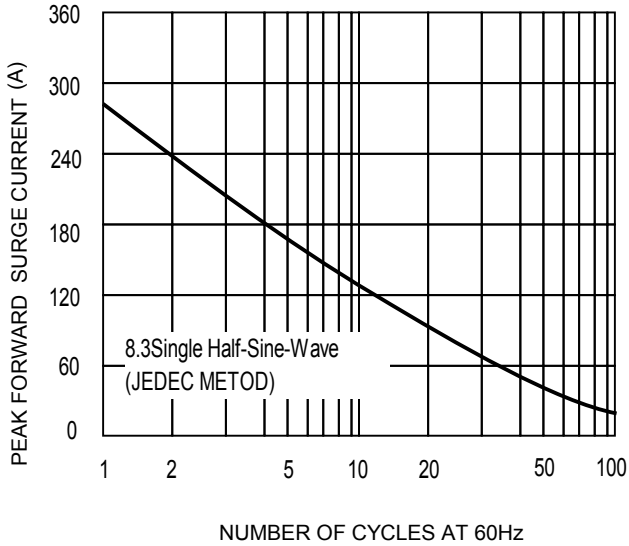


FIG.3-TYPICAL REVER CHARACTERISTICS

