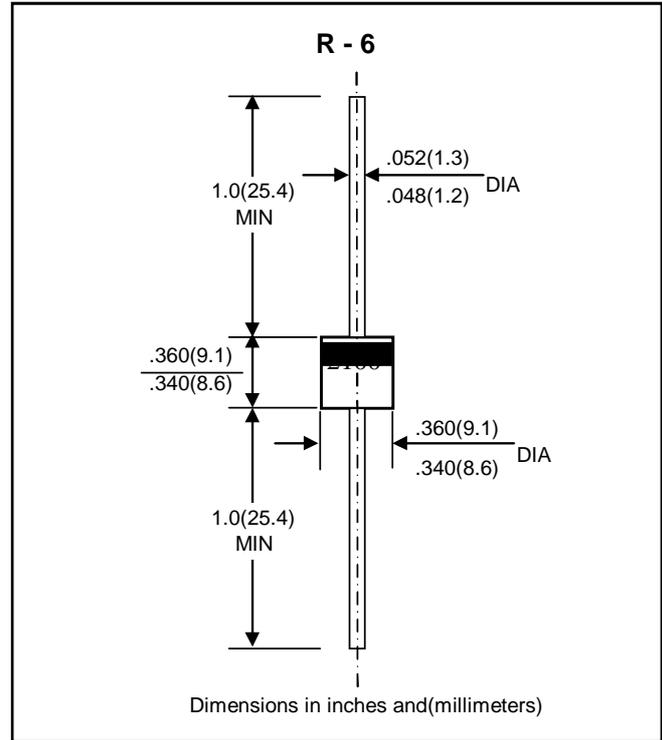


### FEATURES

- Metal of silicon rectifier , majority carrier conduction
- Guard ring for transient protection
- Low power loss,high efficiency
- High current capability,low VF
- High surge capacity
- For use in low voltage,high frequency inverters,free wheeling,and polarity protection applications

### MECHANICAL DATA

- Case: JEDEC R-6 molded plastic
- Polarity: Color band denotes cathode
- Weight: 0.07 ounces , 2.1 grams
- 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.

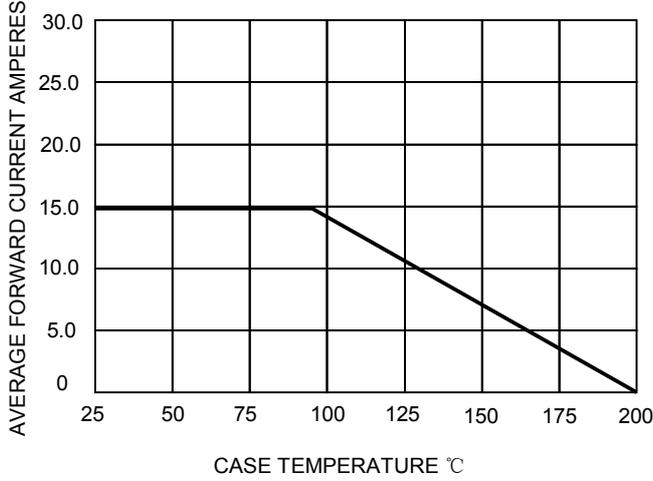
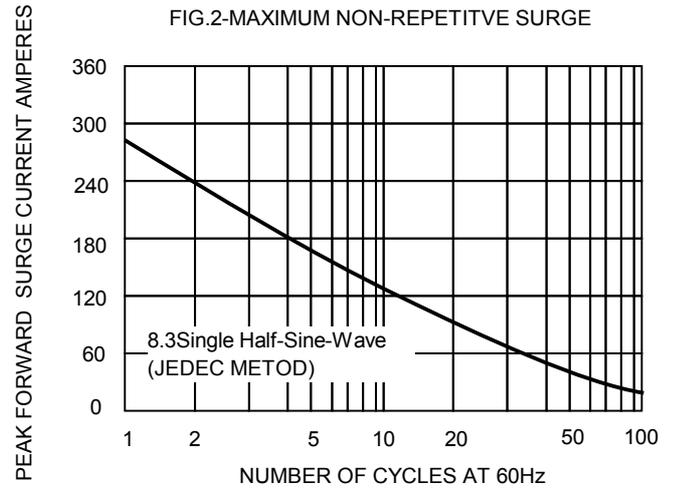
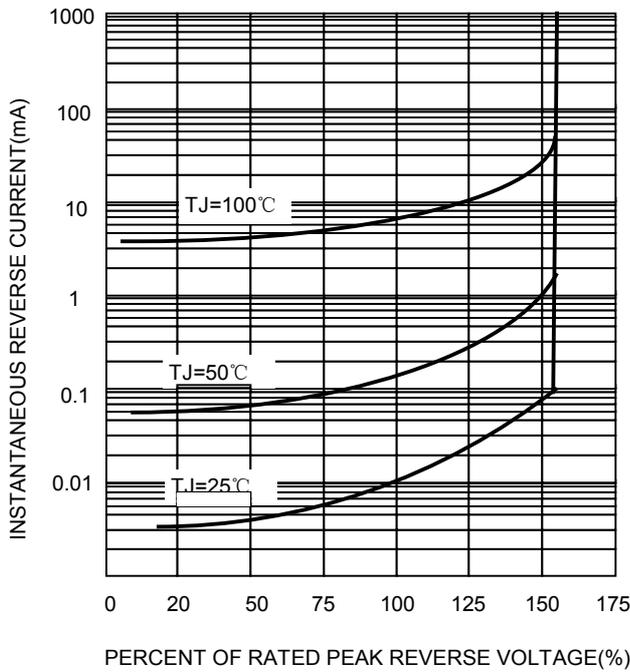
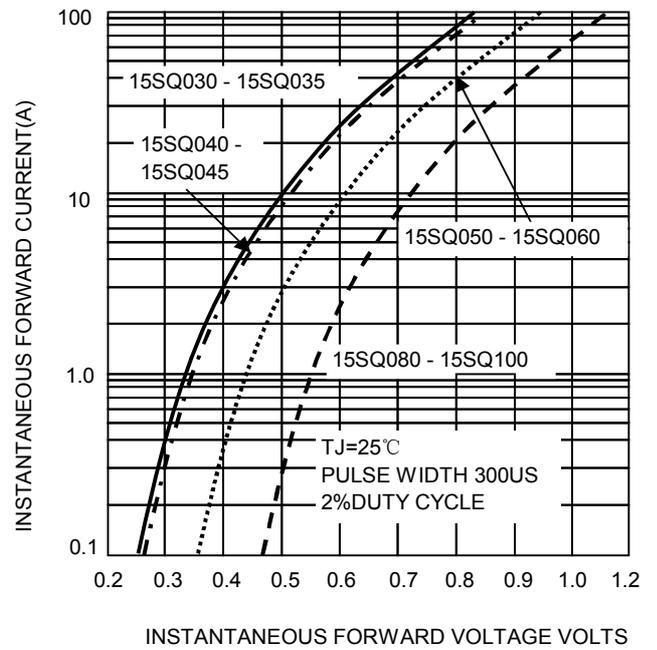
For capacitive load, derate current by 20%

CHARACTERISTICS	SYMBOL	15SQ030	15SQ035	15SQ040	15SQ045	15SQ050	15SQ060	15SQ080	15SQ100	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 @ $T_c=95^\circ C$	$I_{(AV)}$	15								A
Peak Forward Surge Current 8.3ms single half sine-wave super imposed on rated load(JEDEC Method)	$I_{FSM}$	275								A
Peak Forward Voltage at 15A DC(Note1)	$V_F$	0.55			0.7		0.8			V
Maximum DC Reverse Current @ $T_j=25^\circ C$ at Rated DC Bolcking Voltage @ $T_j=125^\circ C$	$I_R$	0.1				50				mA
Typical Junction Capacitance (Note2)	$C_J$	450								pF
Typical Thermal Resistance (Note2)	$R_{\theta jc}$	3								$^\circ C/W$
Junction temperature Range in DC forward mode	$T_J$	-55 to+200								$^\circ C$
Storage Temperature Range	$T_S$	-55 to+175								$^\circ C$
ESD	$V_{ESD}$	15000								V

NOTES:1.300us Pulse Width, 2%Duty 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-REPETITIVE SURGE**

**FIG.3-TYPICAL REVERSE CHARACTERISTICS**

**FIG.4-TYPICAL FORWARD CHARACTERISTICS**

**FIG.5-TYPICAL JUNCTION CAPACITANCE**
