

PHOTOVOLTAIC DIODE

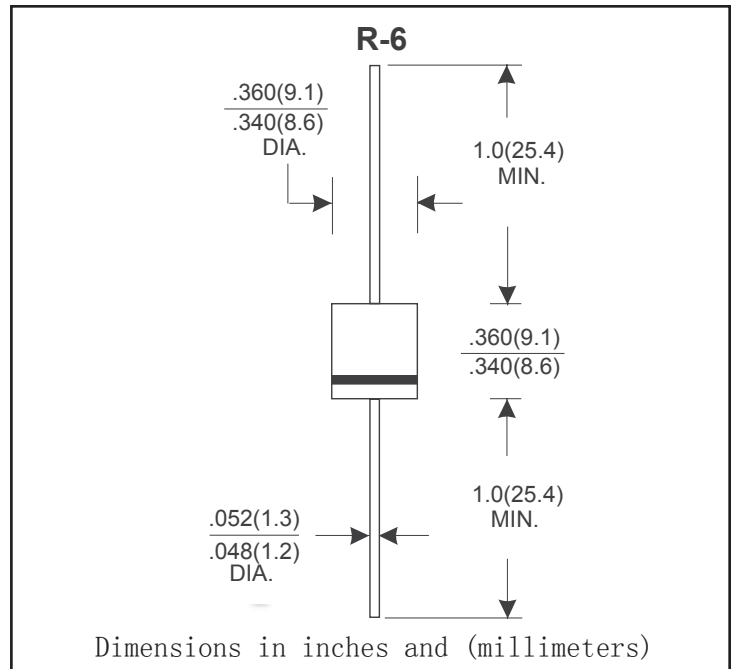
VOLTAGE RANGE: 30--- 100 V
CURRENT: 20.0 A

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
- Plastic package has UL flammability classification 94V-0
- 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 CHARACTERISTICS

@ 25°C Ambient Temperature (unless otherwise noted)Single phase, half wave, 60 Hz, resistive or inductive load.
For capacitive load, derate by 20%.

CHARACTERISTICS	SYMBOL	20SQ030	20SQ035	20SQ040	20SQ045	20SQ050	20SQ060	20SQ080	20SQ100	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 °C	I _(AV)	20								A	
Peak Forward Surge Current 8.3ms single half sine-wave super imposed on rated load(JEDEC Method)	I _{FSM}	300								A	
Peak Forward Voltage at 10A DC(Note1)	V _F	0.55			0.7		0.8			V	
Maximum 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 (Note2)	C _J	450								PF	
Typical Thermal Resistance (Note3)	R _{θJC}	3.0								°C/w	
Operating Temperature Range	T _J	-55 to+150								°C	
Storage Temperature Range	T _{STG}	-55 to+150								°C	

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.



RATINGS AND CHARACTERISTIC CURVES

FIG.1-FORWARD CURRENT DERATING CURVE

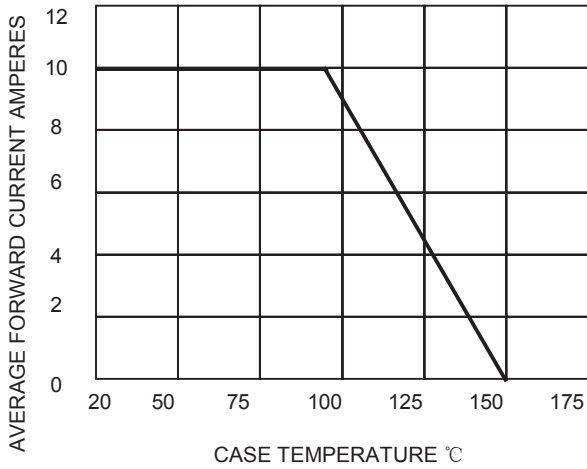


FIG.2-MAXIMUM NON-REPETITIVE SURGE

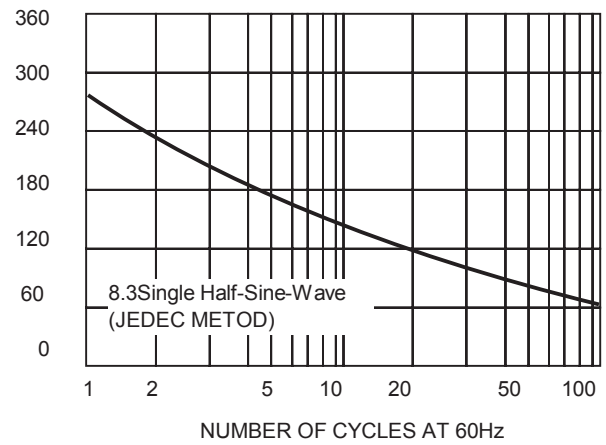


FIG.3-TYPICAL REVERSE CHARACTERISTICS

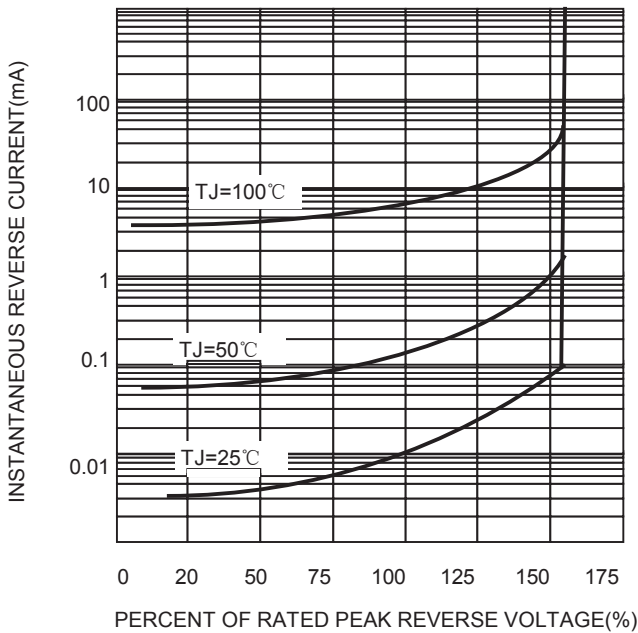


FIG.4-TYPICAL FORWARD CHARACTERISTICS

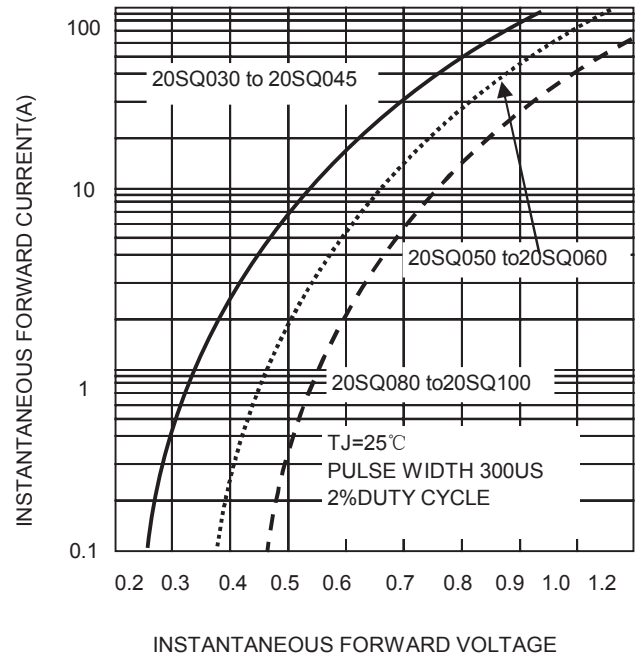


FIG.5-TYPICAL JUNCTION CAPACITANCE

