

PHOTOVOLTAIC SOLAR CELL PROTECTION SCHOTTKY RECTIFIER

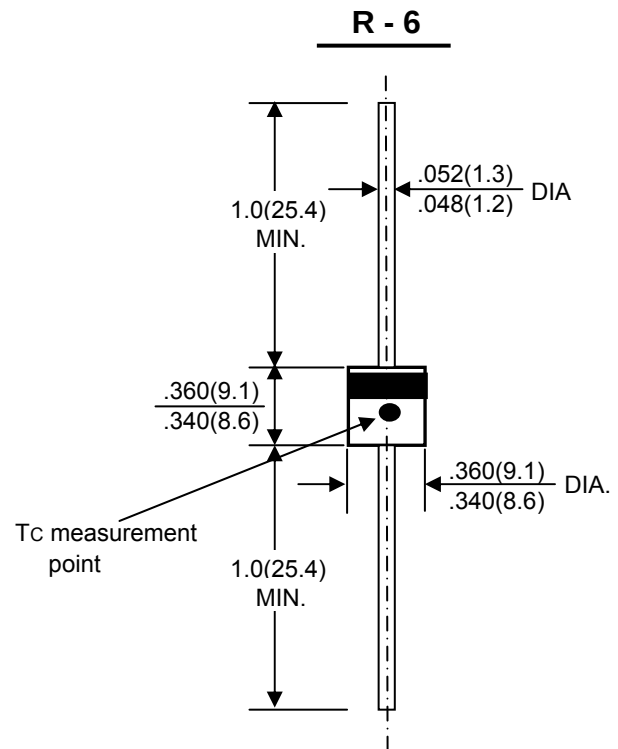
REVERSE VOLTAGE - 45Volts
FORWARD CURRENT - 30 Amperes

FEATURES

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

MECHANICAL DATA

- 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	30THY045	UNIT
Maximum Recurrent Peak Reverse Voltage	V _{RRM}	45	V
Maximum RMS Voltage	V _{RMS}	31.5	V
Maximum DC Blocking Voltage	V _{DC}	45	V
Maximum Average Forward Rectified Current @T _c =170 °C	I _(AV)	30	A
Peak Forward Surge Current 8.3ms single half sine-wave super imposed on rated load(JEDEC Method)	I _{FSM}	400	A
Peak Forward Voltage at 30A DC(Note1)	V _F	0.55	V
Maximum DC Reverse Current at Rated DC Blocking Voltage	@T _j =25°C	0.1	mA
	@T _j =75°C	2	
	@T _j =125°C	35	
Typical Thermal Resistance NOTE2	R _{θJC}	1.5	°C/W
Operating Temperature Range(IN DC Forward Mode-Forward Operations,without reverse bias, t≤1h)	T _J	-55 to+200	°C
Storage Temperature Range	T _{STG}	-55 to+200	°C

NOTES:1.300us Pulse Width, 2%Duty Cycle.

2.Thermal Resistance Junction to case.

FIG.1-FORWARD CURRENT DERATING CURVE

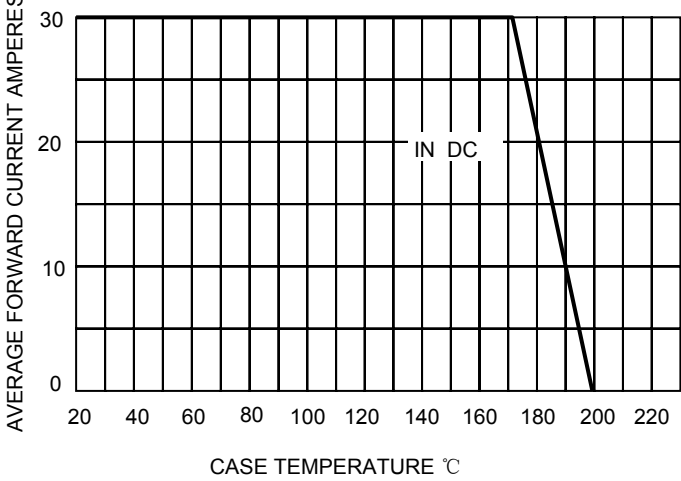


FIG.2-MAXIMUM NON-REPETITIVE SURGE

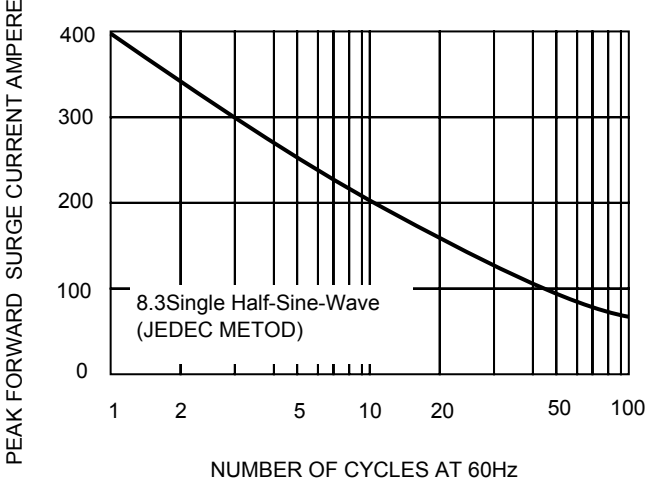


FIG.3-TYPICAL REVERSE CHARACTERISTICS

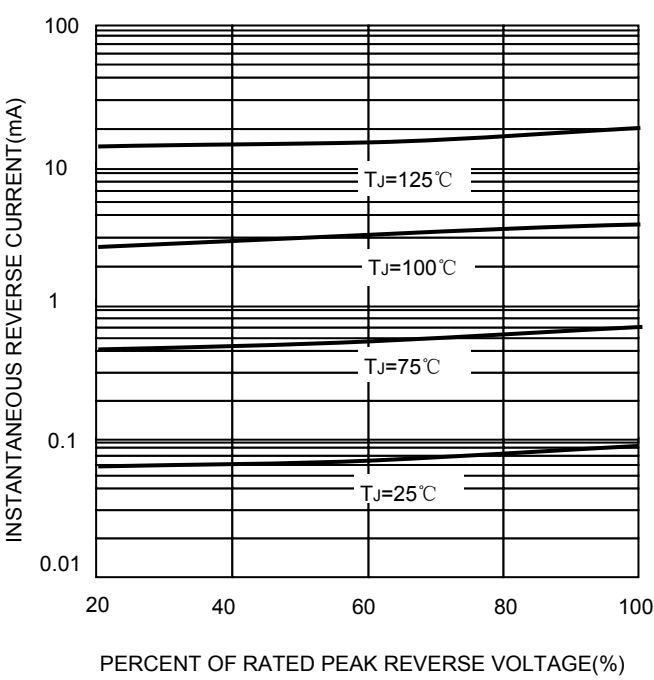
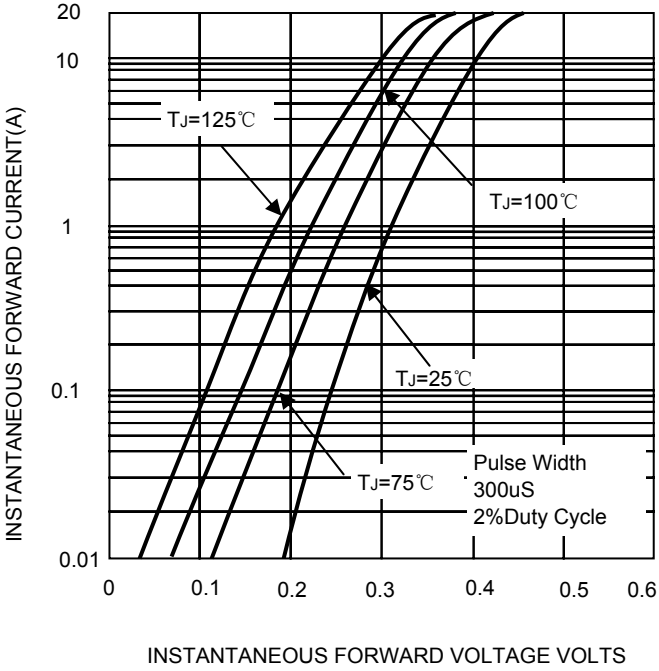


FIG.4-TYPICAL FORWARD CHARACTERISTICS



The curve graph is for reference only, can't be the basis for judgment(曲线图仅供参考)!



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