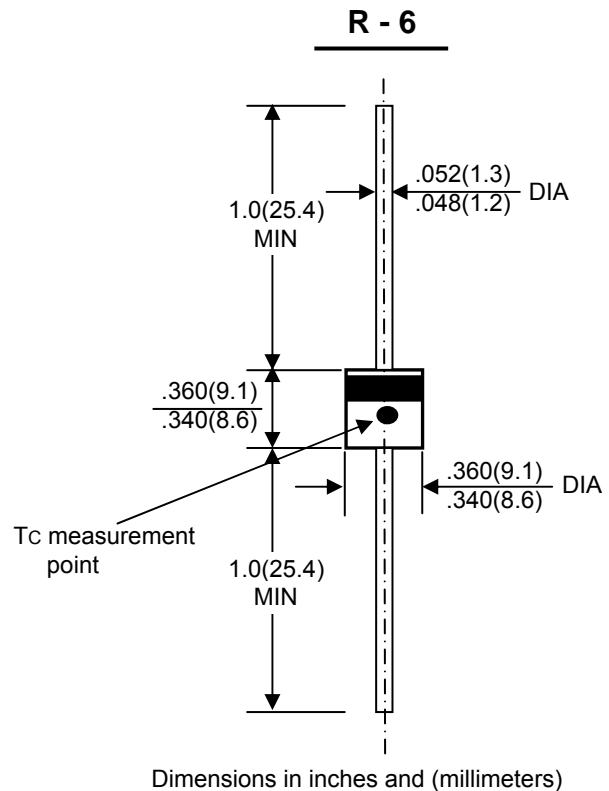


**PHOTOVOLTAIC SOLAR CELL PROTECTION
SCHOTTKY RECTIFIER**
**REVERSE VOLTAGE - 45Volts
FORWARD CURRENT - 25 Amperes**
FEATURES

- 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	25THY045	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)	25	A
Peak Forward Surge Current 8.3ms single half sine-wave super imposed on rated load(JEDEC Method)		I _{FSM}	320	A
Peak Forward Voltage at 25A DC(Note1)		V _F	0.56	V
Maximum DC Reverse Current at Rated DC Blocking Voltage	@T _j =25°C	I _R	0.1	mA
	@T _j =75°C		1.5	
	@T _j =100°C		30	
	@T _j =125°C		100	
Typical Thermal Resistance (Note2)		R _{θJC}	2.5	°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

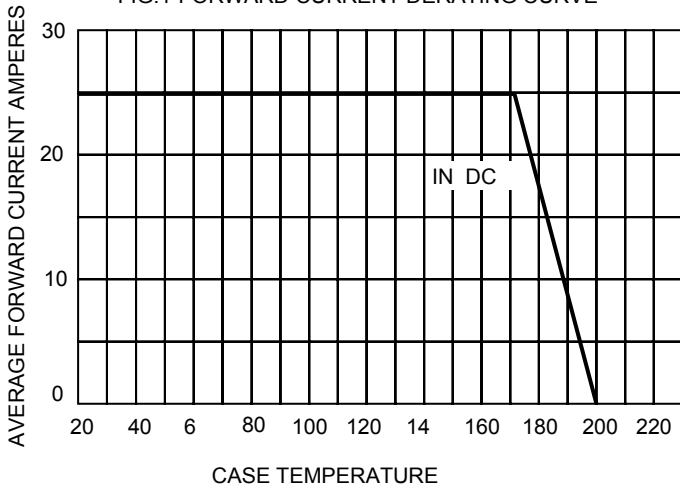


FIG.2-MAXIMUM NON-REPETITIVE SURGE

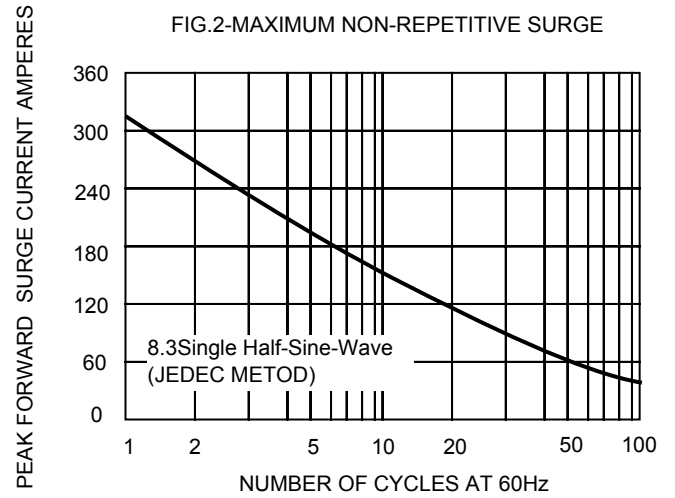


FIG.3-TYPICAL REVERSE CHARACTERISTICS

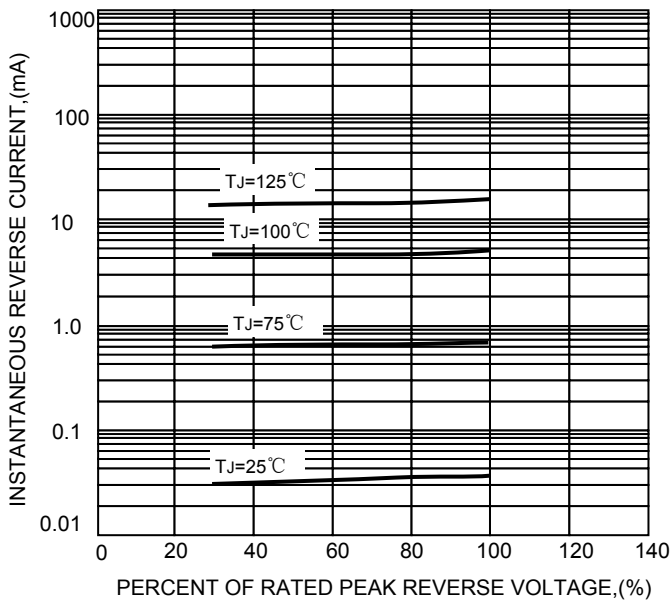


FIG.4-TYPICAL FORWARD CHARACTERISTICS

