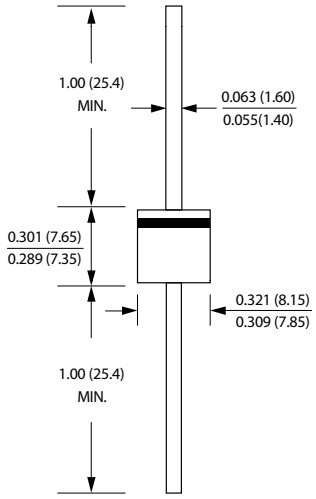
PV2045MR

Bypass Solar Diodes



R-7

Dimensions in inches and (millimeters)

Ordering Information	
Part Number	**Remark**
PV2045MR	General
PV2045MR-H	Halogen Free

PRIMARY CHARACTERISTICS	
I_F	20A
V_{RRM}	45V
I_{FSM}	300A
V_F	0.55V
T_J max	150°C

Features

- Guardring for overvoltage protection
- Very small conduction losses
- Low forward voltage drop
- Component in accordance to RoHS 2002/95/EC

Mechanical Date

- Cases: R-7
- Case Material: Molded Plastic. UL Flammability Classification Rating 94V-0
- Terminals: Lead free Plating (Tin Finish) Solderable per MIL-STD-202, Method 208
- Polarity: Cathode Band
- Weight: 1.986 grams (approximate)

MAXIMUM RATINGS (TA=25°C unless otherwise noted)			
PARAMETER	**SYMBOL**	**PV2045MR**	**UNIT**
Maximum repetitive 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	I_F	15.0	A
Peak forward surge current, 8.3ms single half sine-wave superimposed on rated load	I_{FSM}	300.0	A
Maximum Instantaneous Forward Voltage IF=20A @ 25°C	V_F	0.55	V
Maximum DC Reverse Current @ Tc=25°C at Rated DC Blocking Voltage @ Tc=100°C	I_R	0.5 100	mA
Typical Junction Capacitance(NOTE1)	C_j	600	pF
Typical Thermal Resistance	$R_{\theta JA}$ $R_{\theta JL}$	3	°C/W
Junction temperature in DC forward mode	T_J	-50 ~ 150°C $\leq$ 200°C	°C
Storage Temperature Range	T_{STG}	-55 to +175	°C

NOTES:

1.Measured at 1.0MHZ and applied reverse voltage of 4.0V DC

FIG. 1-TYPICAL FORWARD CURRENT DERATING CURVE

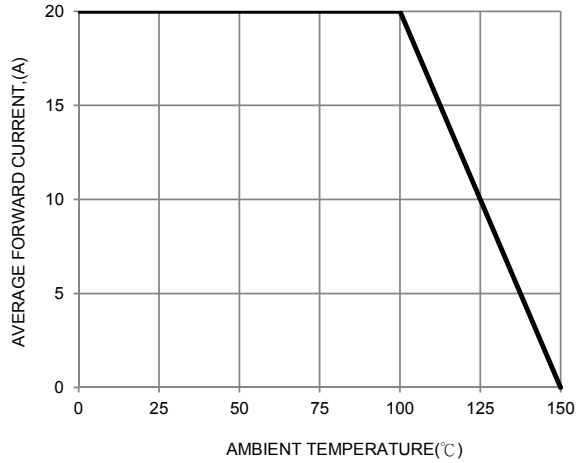


FIG. 2-TYPICAL FORWARD CHARACTERISTICS

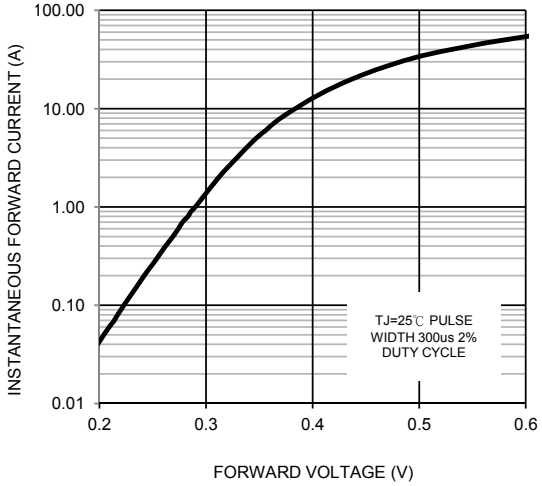


FIG. 3-MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

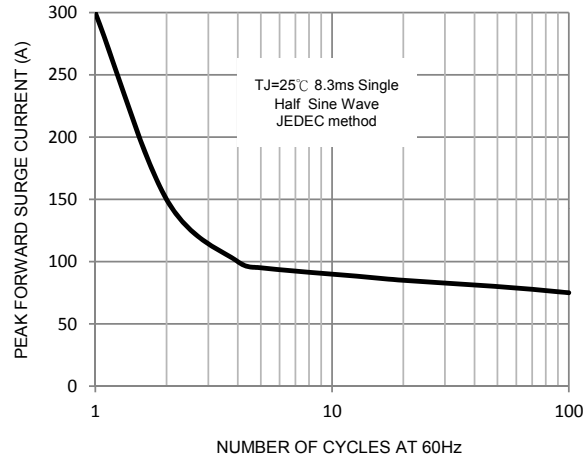


FIG. 4-TYPICAL REVERSE CHARACTERISTICS

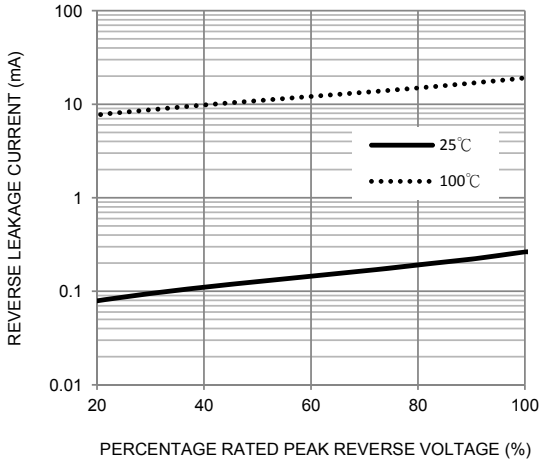


FIG. 5-TYPICAL JUNCTION CAPACITANCE