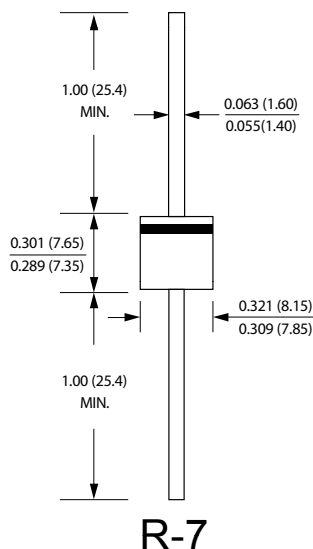


Bypass Solar Diodes



Dimensions in inches and (millimeters)



Ordering Information

Part Number	Remark
PV1845MR	General
PV1845MR-H	Halogen Free

PRIMARY CHARACTERISTICS

I_F	18A
V_{RRM}	45V
I_{FSM}	280A
V_F	0.55V
$T_J \text{ max}$	150°C

Features

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

Mechanical Data

- 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	PV1845MR	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}	280.0	A
Maximum Instantaneous Forward Voltage $I_F=20A @ 25^\circ C$	V_F	0.55	V
Maximum DC Reverse Current @ $T_c=25^\circ C$ at Rated DC Blocking Voltage @ $T_c=100^\circ C$	I_R	0.5 100	mA
Typical Junction Capacitance(NOTE1)	C_j	1,470	pF
Typical Thermal Resistance	$R_{\theta JA}$ $R_{\theta JL}$	3	°C/W
Junction temperature in DC forward mode	T_J	-50 ~ 150°C ≤ 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

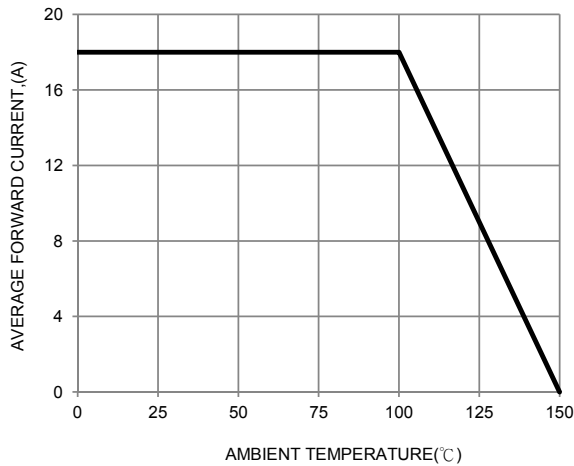


FIG. 2-TYPICAL FORWARD CHARACTERISTICS

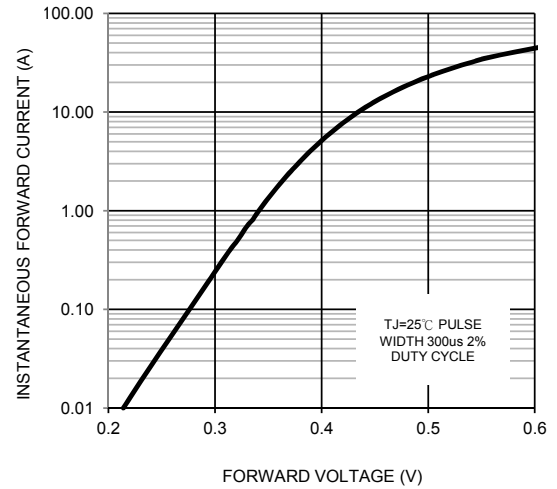


FIG. 3-MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

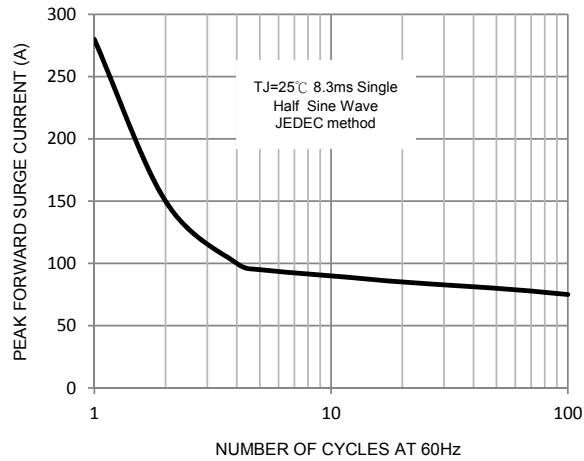


FIG. 4-TYPICAL REVERSE CHARACTERISTICS

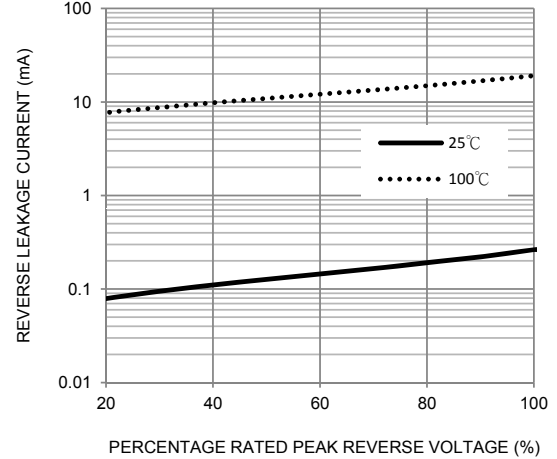


FIG. 5-TYPICAL JUNCTION CAPACITANCE

