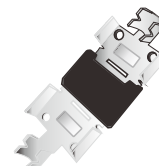


## FEATURES

- Plastic package has Underwriters Laboratory Flammability Classification 94V-0
- Metal silicon junction ,majority carrier conduction
- Guard ring for overvoltage protection
- Low power loss ,high efficiency
- High current capability ,Low forward voltage drop
- Single rectifier construction
- High surge capability
- For use in low voltage ,high frequency inverters, free wheeling ,and polarity protection applications
- High temperature soldering guaranteed:260°C/10 seconds, 0.25"(6.35mm)from case
- Component in accordance to RoHS 2015/863/Eu

## PV001



## MECHANICAL DATA

- Case: PV001 molded plastic body
- Terminals: Solderable per MIL-STD-202,method 208
- Polarity: As marked
- Mounting Position: Any

Dimensions in inches and (millimeters)

## MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

(Ratings at 25°C ambient temperature unless otherwise specified ,Single phase ,half wave ,resistive or inductive load. For capacitive load,derate by 20%.)

Parameter	Symbols	Value	Units	
Maximum repetitive peak reverse voltage	$V_{RRM}$	45	Volts	
Maximum RMS voltage	$V_{RMS}$	31.5	Volts	
Maximum DC blocking voltage	$V_{DC}$	45	Volts	
Maximum average forward rectified current See Fig. 1	$I(AV)$	40.0	Amps	
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC method)	$I_{FSM}$	450	Amps	
Maximum instantaneous forward voltage at 40.0 A	$V_F$	0.55	Volts	
Maximum instantaneous reverse current at rated DC blocking voltage(Note 1)	$I_R$	$T_c=25^\circ C$	100	$\mu A$
		$T_c=100^\circ C$	10	mA
Typical thermal resistance (Note 2)	$R_{\theta JC}$	1.0	$^\circ C/W$	
Storage temperature range	$T_{STG}$	-55 to+200	$^\circ C$	
Operating junction temperature range in DC forward model	$T_J$	-55 to+200	$^\circ C$	

- Notes:** 1.Pulse test: 300  $\mu s$  pulse width,1% duty cycle  
2.Thermal resistance from junction to case

# RATINGS AND CHARACTERISTIC CURVES MK4045A

FIG.1-FORWARD CURRENT DERATING CURVE

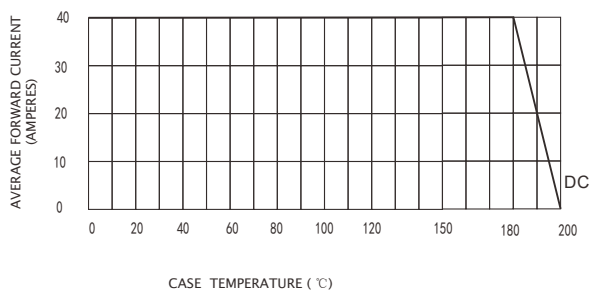


FIG.2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

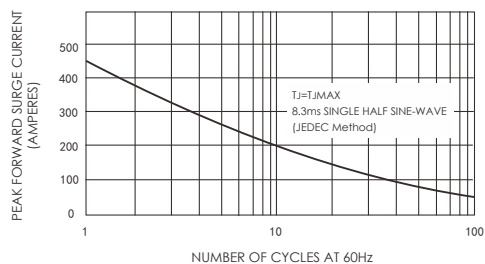


FIG.3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

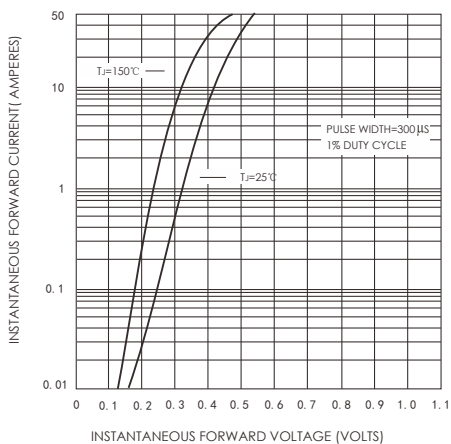


FIG.4-TYPICAL REVERSE CHARACTERISTICS

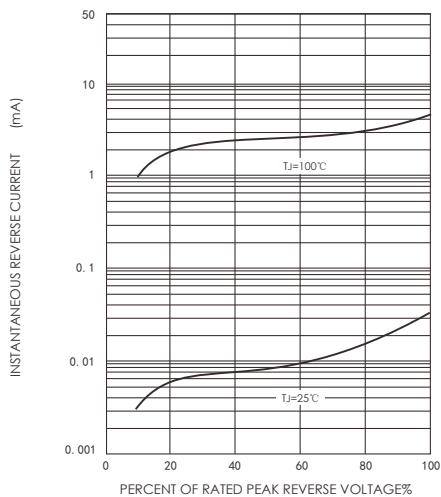
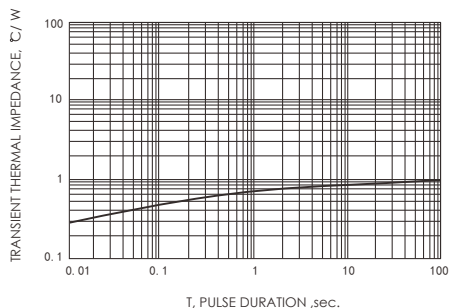
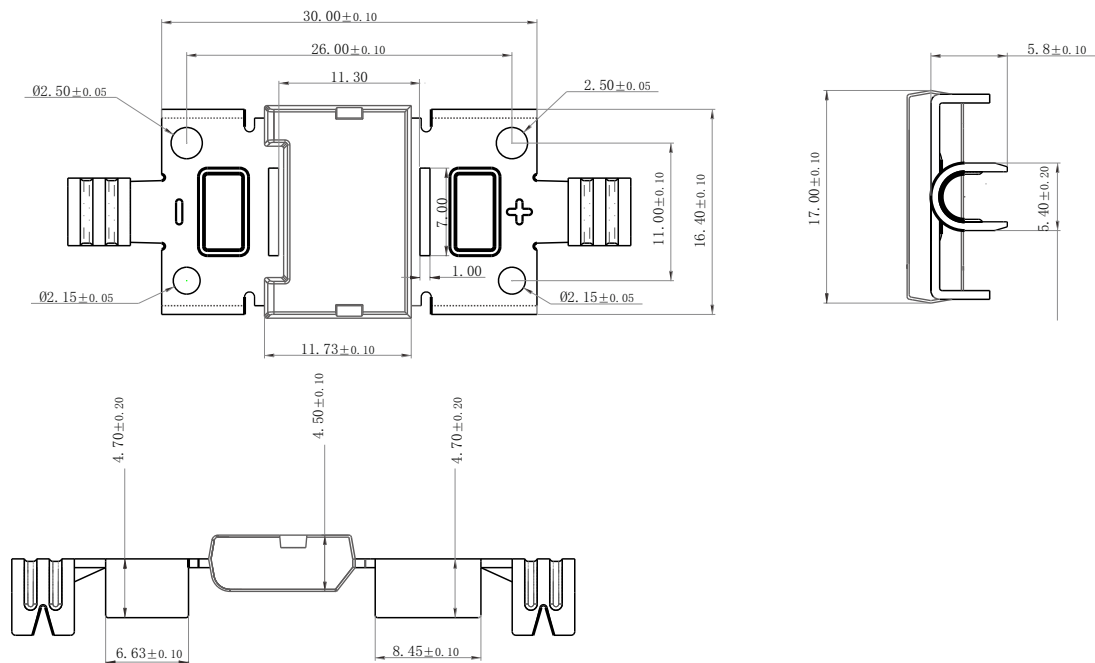


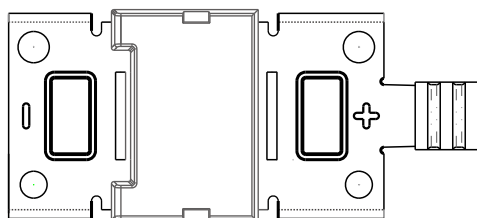
FIG.6-TYPICAL TRANSIENT THERMAL IMPEDANCE



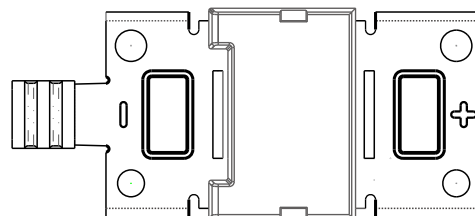
# PACKAGE OUTLINE DIMENSIONS



Dimensions in millimeters



+ (正) 极



- (负) 极

## Friendship Reminder

■ JiNan JingHeng (hereinafter referred to as JH) reserves the right to make changes to this document and its products and specifications at anytime without notice.

济南晶恒（以下简称 JH）保留未经通知，变更本文件和与本文件相关的产品及规格的权利。

■ Customers should obtain and confirm the latest product information and specifications before final design, purchase or use.

使用方应在使用、采购本产品之前获取并确认产品信息和规格书的最新版本。

■ JH makes no warranty, representation or guarantee regarding the suitability of its products for any particular purpose, nor does JH assume any liability for application assistance or customer product design.

JH 对其产品用于某特定用途的适用性，既不做任何保证、说明或担保，也不承担任何应用协助或使用方设计的法定责任。

■ JH does not warrant or accept any liability with products which are purchased or used for any unintended or unauthorized application.

JH 不保证或承担任何责任，其产品被采购使用于任何非预期或授权的应用，

■ No license is granted by implication or otherwise under any intellectual property rights of JH.

此规格书属于 JH 的知识产权，没有经过我司授权不得抄袭。

■ JH's products are not authorized for use as critical components in life support devices or systems without express written approval of JH.

没有 JH 的书面授权，JH 的产品不能在生命支撑设备或系统里作为关键零件使用。