

**Z3PK2045H**

● **FEATURES**

- \* Halogen-free type
- \* Lead free product, compliance to RoHS
- \* Lead less chip form, no lead damage
- \* Low power loss, High efficiency
- \* High current capability, low VF
- \* Plastic package has Underwriters Laboratory Flammability Classification 94V-0
- \* Patented ZPAK™ Package Technology

● **APPLICATION**

- \* Switching mode power supply applications
- \* Portable equipment battery applications
- \* High frequency rectification
- \* DC / DC Converter
- \* Designed as bypass diodes for solar panels

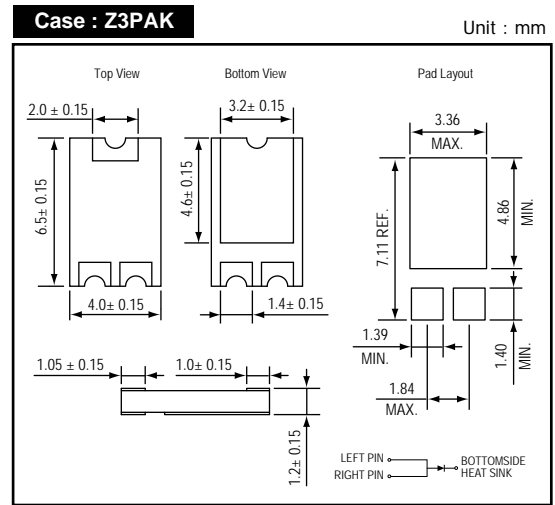
● **MECHANICAL DATA**

**Case :** Packed with FRP substrate and epoxy underfilled  
**Terminals :** Pure Tin plated (Lead-Free), solderable per MIL-STD-750, Method 2026.

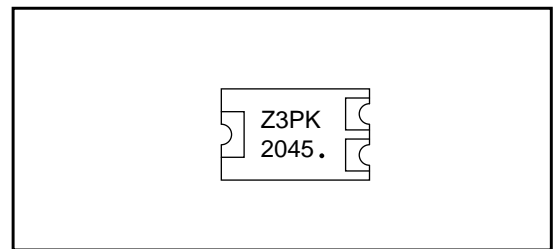
● **PACKING**

- \* 5,000 pieces per 13" (330mm ± 2mm) reel
- \* 2 reels per box
- \* 5 boxes per carton

● **OUTLINE DIMENSIONS**



● **MARKING**



**Absolute Maximum Ratings (Ta = 25 °C)**

ITEM	Symbol	Conditions	Rating	Unit
			Z3PK2045H	
Repetitive peak reverse voltage	VRRM		45	V
Average forward current	IF(AV)		20	A
Peak forward surge current	IFSM	8.3ms single half sine-wave	300	A
Operating junction temperature Range	Tj		-55 to +150	°C
Storage temperature Range	TSTG		-55 to +150	°C

**Electrical characteristics (Ta = 25 °C)**

ITEM	Symbol	Conditions	Min.	Typ.	Max.	Unit	
Forward voltage (NOTE 1)	VF	IF = 20A	-	0.58	0.64	V	
Repetitive peak reverse current	IRRM	VR = Max. VRRM	Ta = 25 °C	-	0.02	0.10	mA
			Ta = 125 °C	-	-	50	
Thermal resistance	Rth(JA)	Junction to ambient (NOTE 2)	-	60	-	°C/W	
	Rth(JL)	Junction to lead (NOTE 2)	-	22	-	°C/W	
	Rth(JC)	Junction to case (NOTE 2)	-	20	-	°C/W	

NOTES : (1) Pulse test width PW=300usec , 1% duty cycle.  
 (2) Mounted on P.C.B. with 14 x 14mm copper pad areas.

FIG.1 - FORWARD CURRENT DERATING CURVE

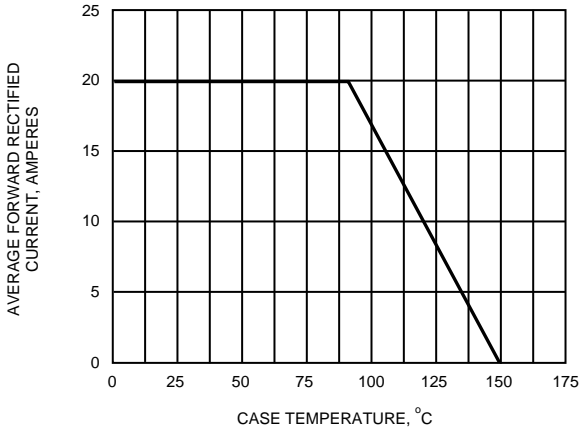


FIG.2 - MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

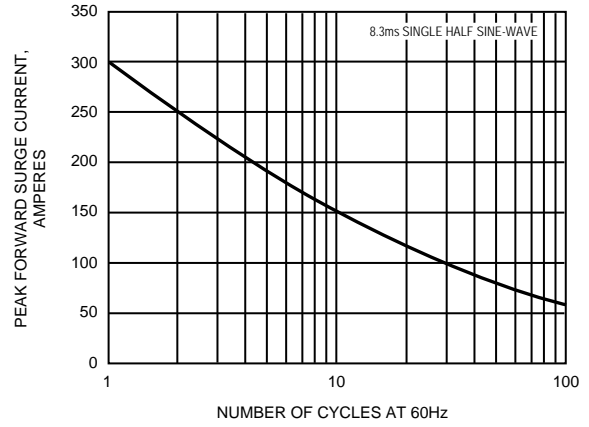


FIG.3 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

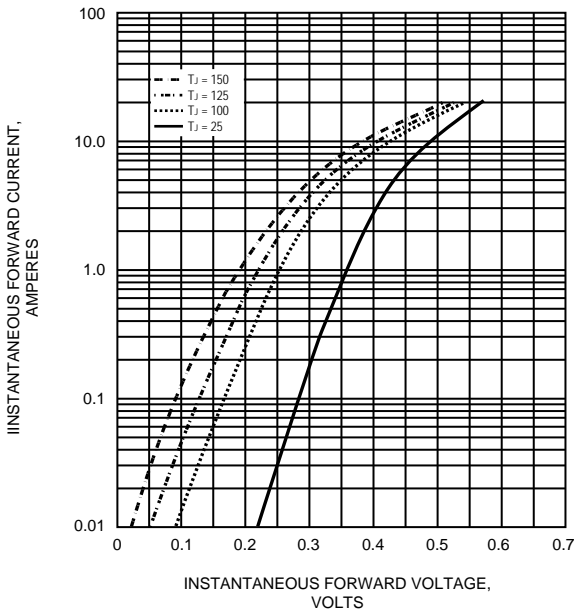


FIG.4 - TYPICAL REVERSE CHARACTERISTICS

