

**Preliminary
Z3PK545TH**

● **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**

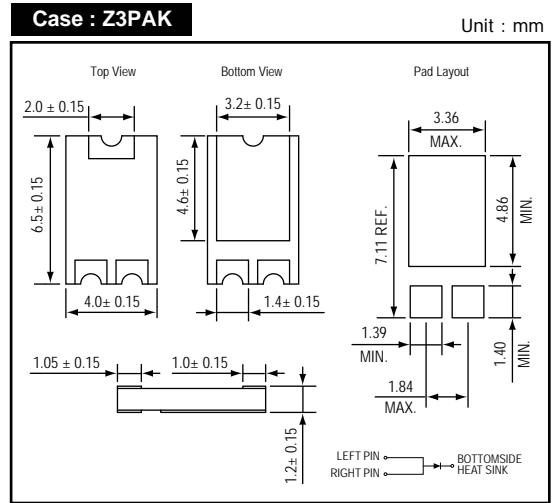
Case : Packed with FRP substrate and epoxy underfilled

Terminals : Pure Tin plated (Lead-Free), solderable per MIL-STD-750, Method 2026.

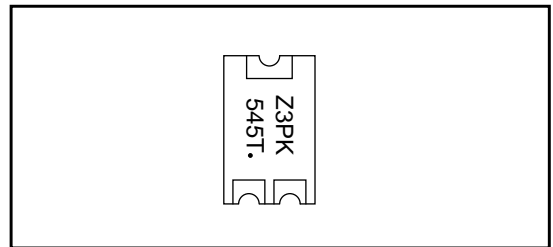
● **PACKING**

- * 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
Repetitive peak reverse voltage	VRRM		45	V
Average forward current	IF(AV)		5	A
Peak forward surge current	IFSM	8.3ms single half sine-wave	100	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 = 5A	-	0.53	0.56	V	
Repetitive peak reverse current	IRRM	VR = Max. VRRM	Ta = 25 °C	-	0.05	0.20	mA
			Ta = 125 °C	-	10	50	
Thermal resistance	Rth(JA)	Junction to ambient (NOTE 2)	-	126	-	°C/W	
	Rth(JC)	Junction to case (NOTE 2)	-	24	-	°C/W	

NOTES : (1) Pulse test width PW=300usec , 1% duty cycle.
(2) Mounted on P.C.B. with 3.36 x 4.86mm & 1.39 x 1.4mm copper pad areas.

FIG.1 - FORWARD CURRENT DERATING CURVE

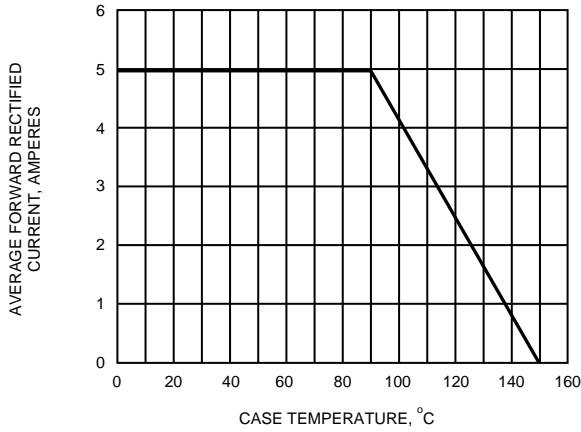


FIG.2 - MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

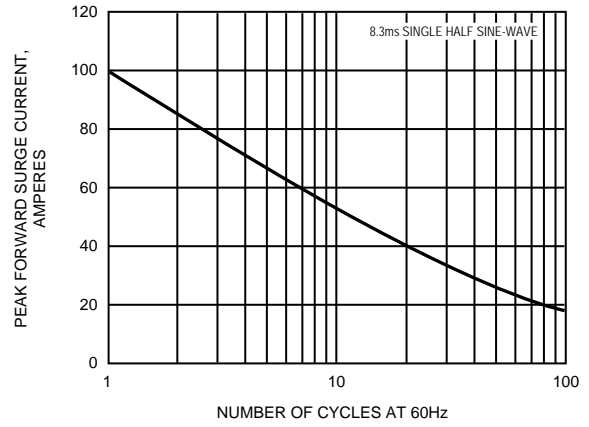


FIG.3 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

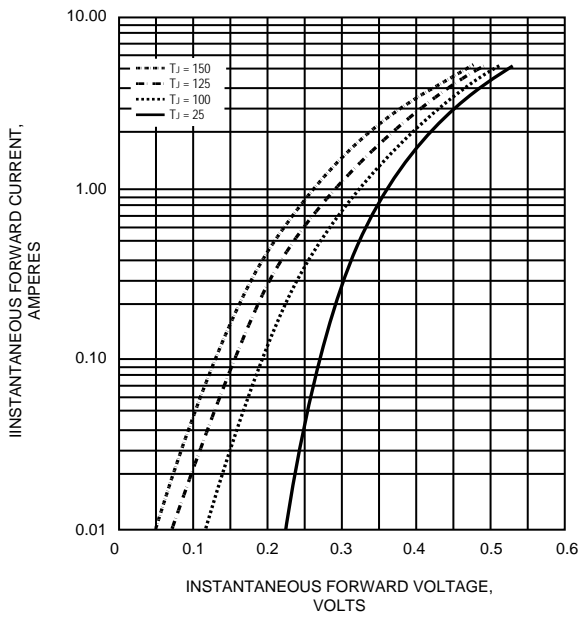


FIG.4 - TYPICAL REVERSE CHARACTERISTICS

