

Z3PK1045UH
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

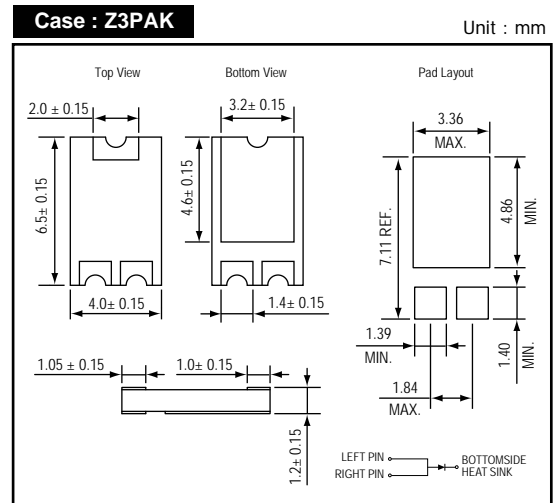
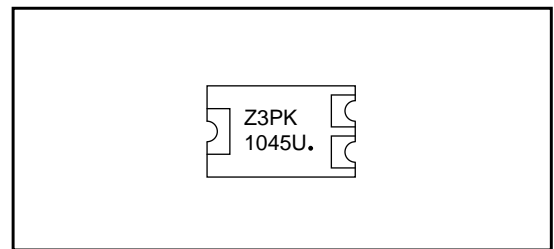
MECHANICAL DATA

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)		10	A
Peak forward surge current	IFSM	8.3ms single half sine-wave	200	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 = 2A Ta = 25 °C	-	0.32	-	V
		IF = 10A Ta = 25 °C	-	0.43	0.46	
		IF = 10A Ta = 125 °C	-	0.42	-	
Repetitive peak reverse current	IRRM	VR = Max. VRRM Ta = 25 °C	-	0.12	0.35	mA
		Ta = 100 °C	-	15	50	
Junction capacitance	Cj	VR = 4V, f = 1.0 MHz	-	560	-	pF
Thermal resistance	Rth(JA)	Junction to ambient (NOTE 2)	-	122	-	°C/W
	Rth(JC)	Junction to case (NOTE 2)	-	18	-	°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.
 (3) Preliminary specification

FIG.1 - FORWARD CURRENT DERATING CURVE

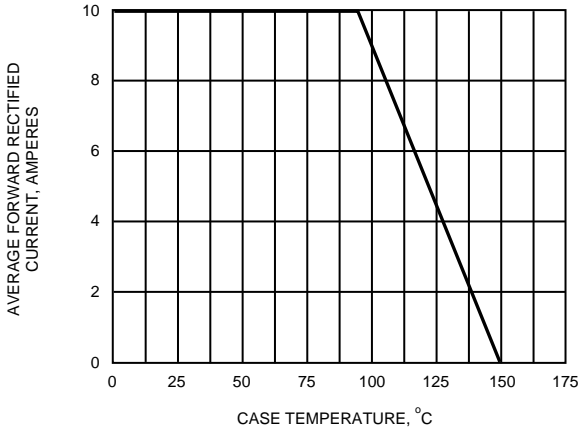


FIG.2 - MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

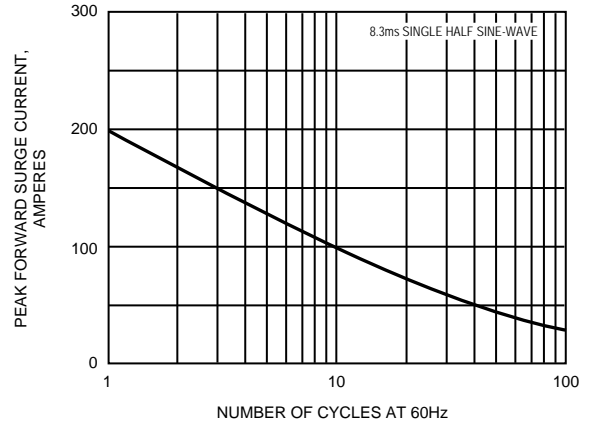


FIG.3 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

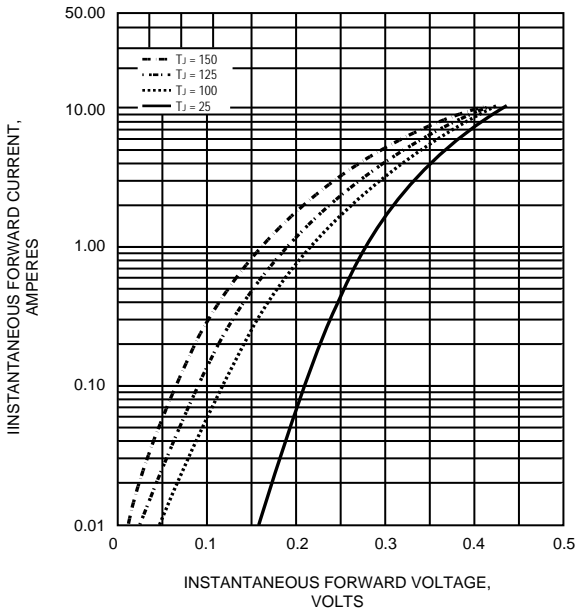


FIG.4 - TYPICAL REVERSE CHARACTERISTICS

