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

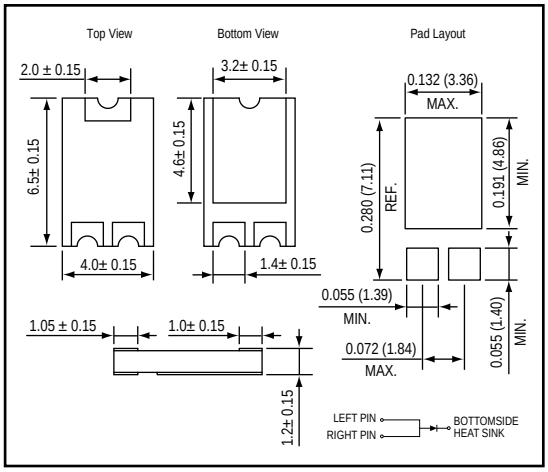
Case : Packed with FRP substrate and epoxy underfilled
Terminals : Pure Tin plated (Lead-Free), solderable per MIL-STD-750, Method 2026.

PACKING

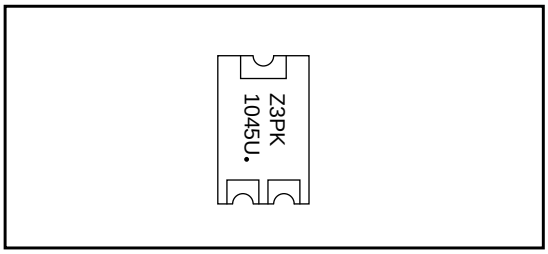
* 5,000 pieces per 13" (330mm ± 2mm) reel
* 2 reels per box
* 5 boxes per carton

OUTLINE DIMENSIONS

Case : Z3PAK Unit : mm



MARKING



Absolute Maximum Ratings (Ta = 25 °C)

ITEM	Symbol	Conditions	Rating	Unit
Repetitive peak reverse voltage	V_{RRM}		45	V
Average forward current	$I_{F(AV)}$		10	A
Peak forward surge current	I_{FSM}	8.3ms single half sine-wave	200	A
Operating junction temperature Range	T_j		-55 to +150	°C
Storage temperature Range	T_{STG}		-55 to +150	°C

Electrical characteristics (Ta = 25 °C)

ITEM	Symbol	Conditions		Min.	Typ.	Max.	Unit
Forward voltage (NOTE 1)	V_F	I_F = 10A	Ta = 25 °C	-	0.43	0.46	V
			Ta = 125 °C	-	0.42	-	
Repetitive peak reverse current	I_{RRM}	V_R = Max. V_{RRM}	Ta = 25 °C	-	0.12	0.35	mA
			Ta = 100 °C	-	15	50	
Thermal resistance	$R_{th(JA)}$	Junction to ambient (NOTE 2)		-	122	-	°C/W
	$R_{th(JC)}$	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

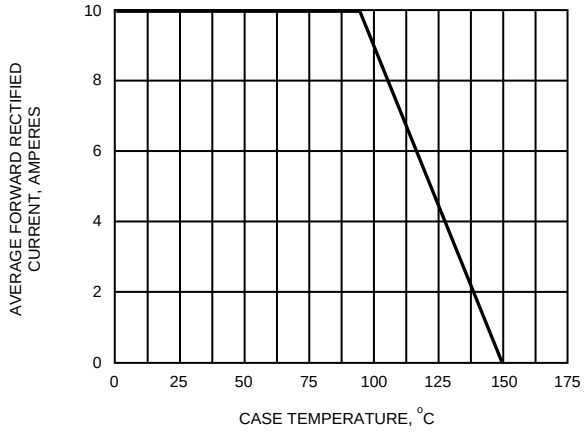


FIG.2 - MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

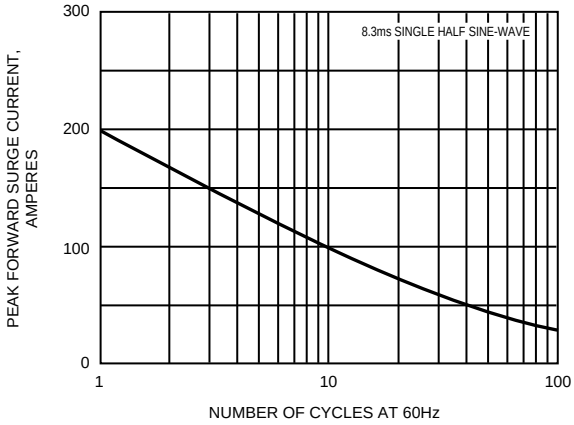


FIG.3 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

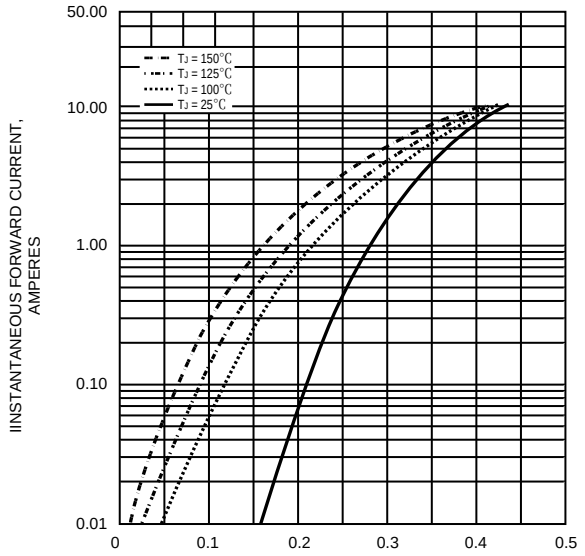


FIG.4 - TYPICAL REVERSE CHARACTERISTICS

