

Z3PK1045H
● 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

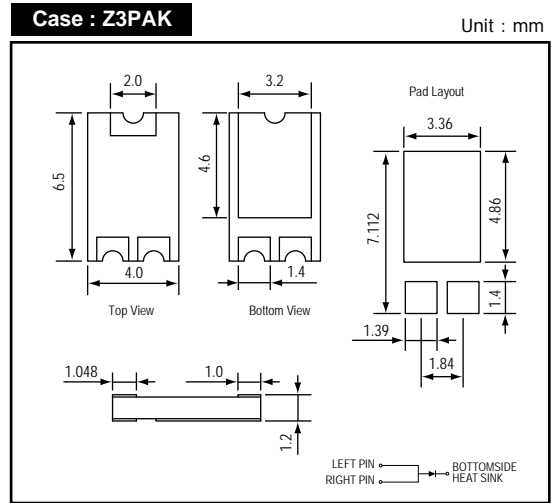
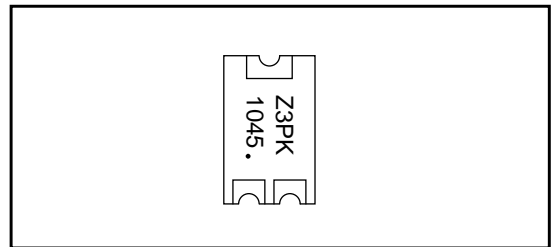
● APPLICATION

- * 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.

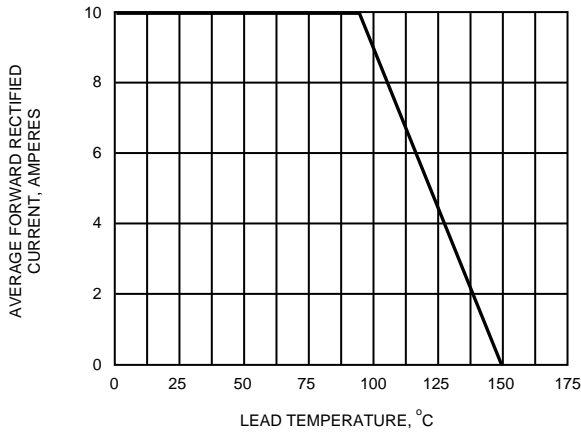
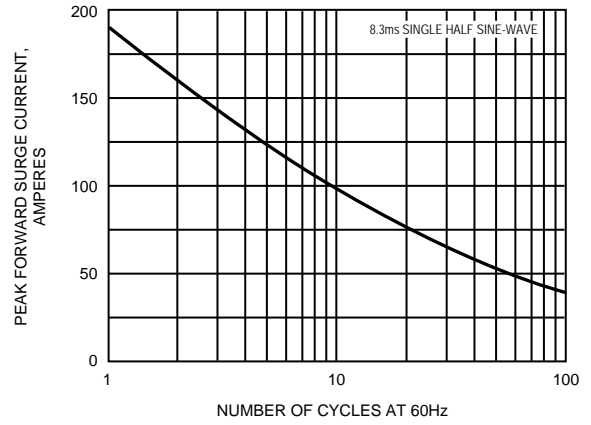
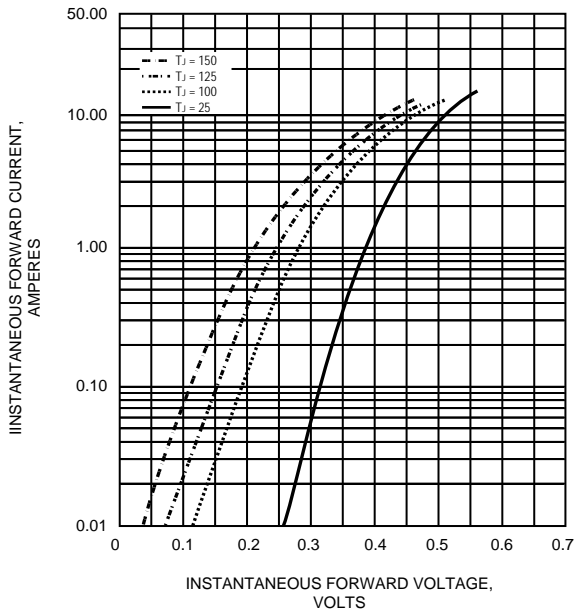
● OUTLINE DIMENSIONS

● MARKING

Absolute Maximum Ratings (Ta = 25 °C)

ITEM	Symbol	Conditions	Rating	Unit
			Z3PK1045H	
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	190	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 = 10A	-	0.57	0.62	V	
Repetitive peak reverse current	IRRM	VR = Max. VRRM	Ta = 25 °C	-	0.01	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
