Z3PK10100LH
Ultra Low VF = 0.455V at I_F = 5A

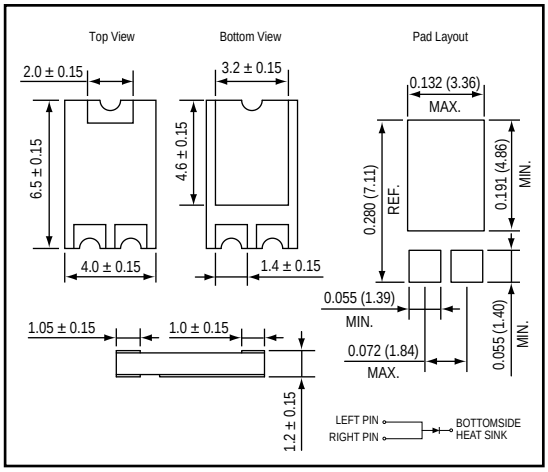
FEATURES
* Halogen-free type
* Lead free product, compliance to RoHS
* Lead less chip form, no lead damage
* Low power loss, High efficiency
* High current capability, low VF
* Plastic package has Underwriters Laboratory Flammability Classification 94V-0
* Patented ZPAK™ Package Technology

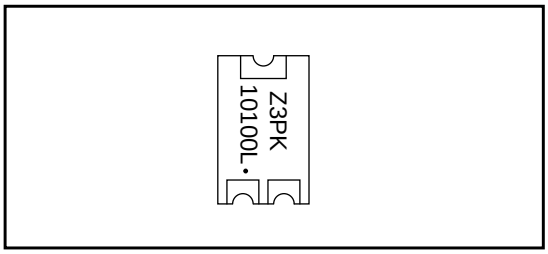
APPLICATION
* Switching mode power supply applications
* Portable equipment battery applications
* High frequency rectification
* DC / DC Converter
* Designed as bypass diodes for solar panels

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}		100	V
Average forward current	$I_{F(AV)}$		10	A
Peak forward surge current	I_{FSM}	8.3ms single half sine-wave	180	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	V_F	@ I_F = 5A	Ta = 25 °C	-	0.515	-	V
			Ta = 125 °C	-	0.455	-	
		@ I_F = 10A	Ta = 25 °C	-	0.63	0.68	V
			Ta = 125 °C	-	0.57	0.62	
Repetitive peak reverse current	I_{RRM}	@ V_R = 70V	Ta = 25 °C	-	0.01	-	mA
			Ta = 125 °C	-	6	-	
		@ V_R = Max. V_{RRM}	Ta = 25 °C	-	0.03	0.15	mA
			Ta = 125 °C	-	-	30	
Thermal resistance	$R_{th(JA)}$	Junction to ambient (NOTE)		-	105.5	-	°C/W
	$R_{th(JC)}$	Junction to case (NOTE)		-	3.9	-	°C/W

NOTES : Mounted on P.C.B. with 3.36 x 14.86mm & 1.39 x 1.40mm copper pad areas.

FIG.1 - FORWARD CURRENT DERATING CURVE

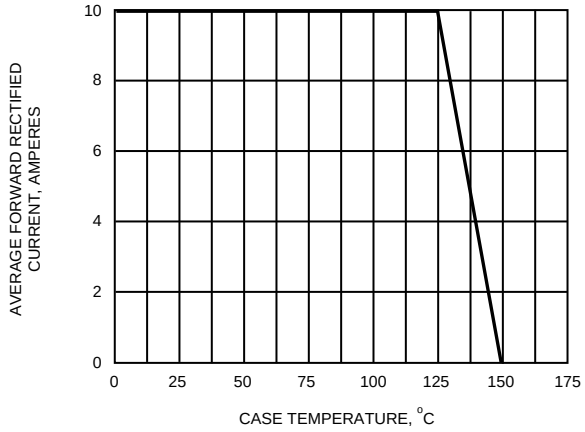


FIG.2 - MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

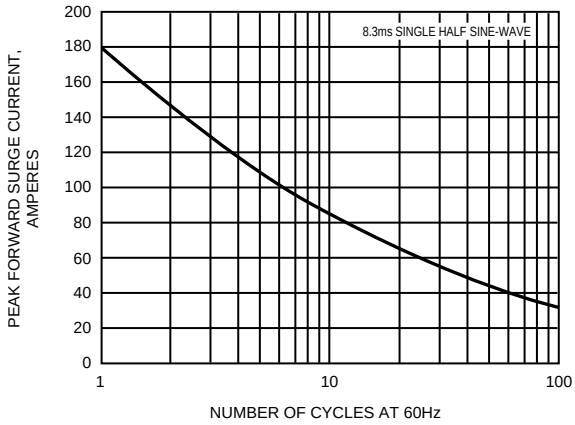


FIG.3 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

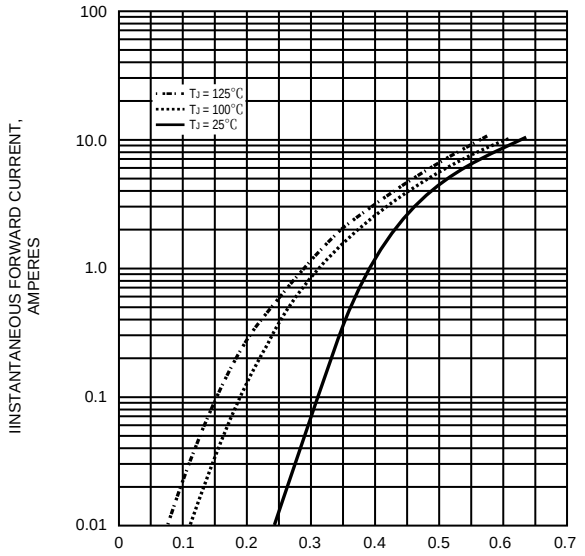


FIG.4 - TYPICAL REVERSE CHARACTERISTICS