

Z3PK10100UH
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

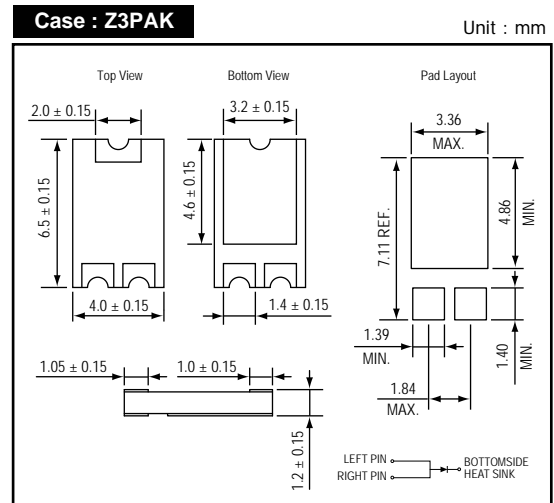
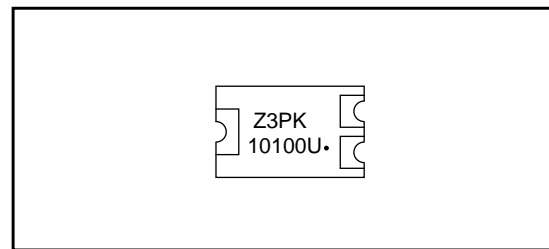
- * Switching mode power supply applications
- * Portable equipment battery applications
- * High frequency rectification
- * DC / DC Converter
- * Designed as bypass diodes for solar panels

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

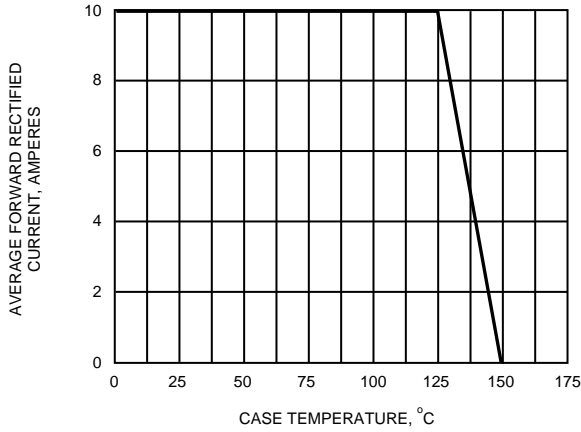
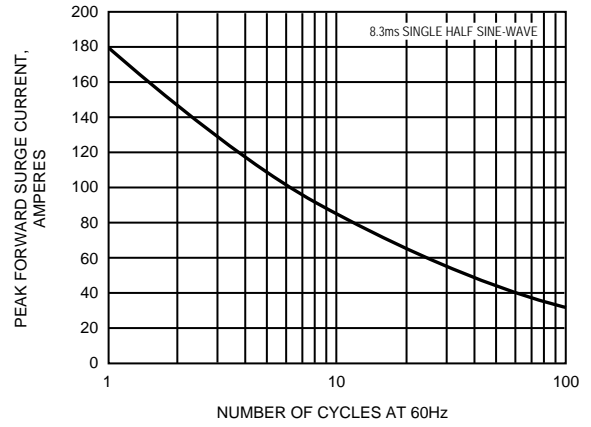
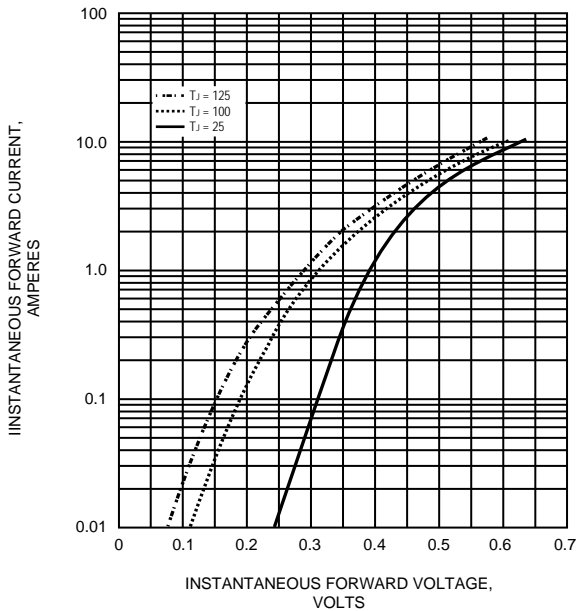
OUTLINE DIMENSIONS

MARKING

Absolute Maximum Ratings ($T_a = 25\text{ }^\circ\text{C}$)

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	$^\circ\text{C}$
Storage temperature Range	T_{STG}		-55 to +150	$^\circ\text{C}$

Electrical characteristics ($T_a = 25\text{ }^\circ\text{C}$)

ITEM	Symbol	Conditions	Min.	Typ.	Max.	Unit	
Forward voltage	V_F	@ $I_F = 5A$	$T_a = 25\text{ }^\circ\text{C}$	-	0.515	-	V
			$T_a = 125\text{ }^\circ\text{C}$	-	0.455	-	
		@ $I_F = 10A$	$T_a = 25\text{ }^\circ\text{C}$	-	0.63	0.68	V
			$T_a = 125\text{ }^\circ\text{C}$	-	0.57	0.62	
Repetitive peak reverse current	I_{RRM}	@ $V_R = 70V$	$T_a = 25\text{ }^\circ\text{C}$	-	0.01	-	mA
			$T_a = 125\text{ }^\circ\text{C}$	-	6	-	
		@ $V_R = \text{Max. } V_{RRM}$	$T_a = 25\text{ }^\circ\text{C}$	-	0.03	0.15	mA
		$T_a = 125\text{ }^\circ\text{C}$	-	-	30		
Junction capacitance	C_j	$V_R = 4V, f = 1.0\text{ MHz}$	-	1100	-	pF	
Thermal resistance	$R_{th(JA)}$	Junction to ambient (NOTE)	-	105.5	-	$^\circ\text{C/W}$	
	$R_{th(JC)}$	Junction to case (NOTE)	-	3.9	-	$^\circ\text{C/W}$	

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
