

BYD37ZH series

FEATURES

- * Halogen-free type
- * Lead free product, compliance to RoHS
- * GPRC (Glass passivated rectifier chip) inside
- * Lead less chip form, no lead damage
- * Lead-free solder joint, no wire bond & lead frame
- * Low power loss, High efficiency
- * High current capability
- * Moisture sensitivity level 2
- * Plastic package has Underwriters Laboratory Flammability Classification 94V-0

APPLICATION

- * High frequency rectification
- * AC/DC Power Supply

MECHANICAL DATA

Case : Packed with FRP substrate and epoxy underfilled

Terminals : Pure Tin plated (Lead-Free),
solderable per MIL-STD-750, Method 2026.

Polarity : Laser Cathode band marking

Weight : 0.012 gram

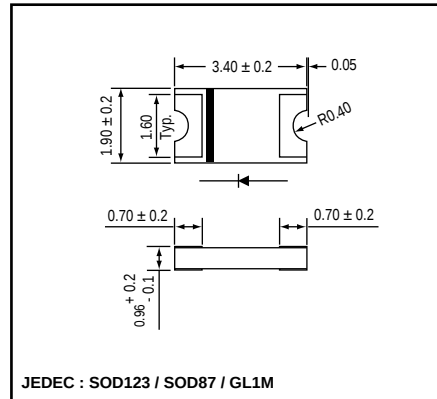
PACKING

- * 3,000 pieces per 7" (178mm ± 2mm) reel
- * 4 reels per box
- * 6 boxes per carton

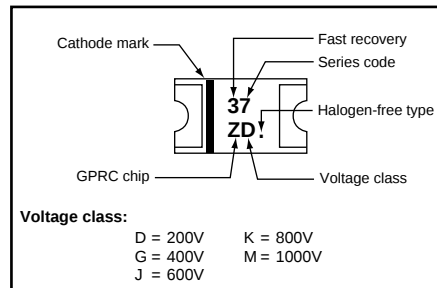
OUTLINE DIMENSIONS

Case : 1206

Unit : mm



MARKING



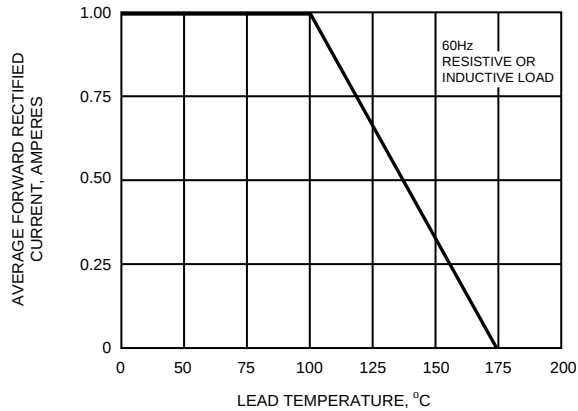
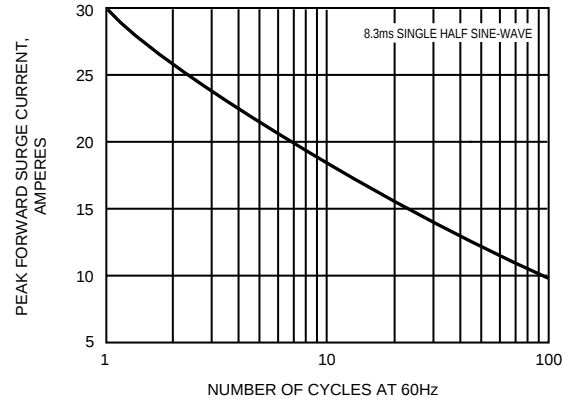
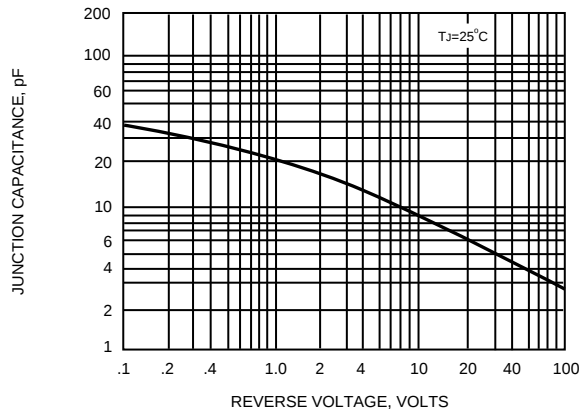
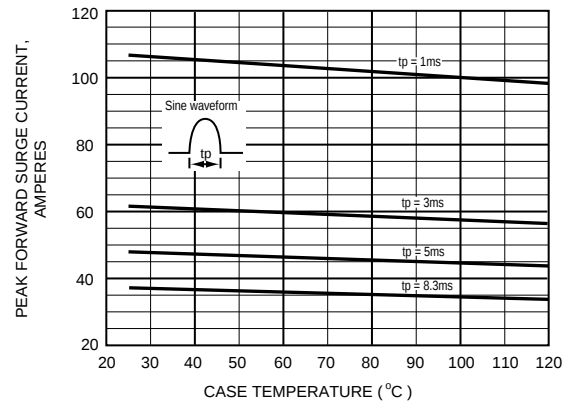
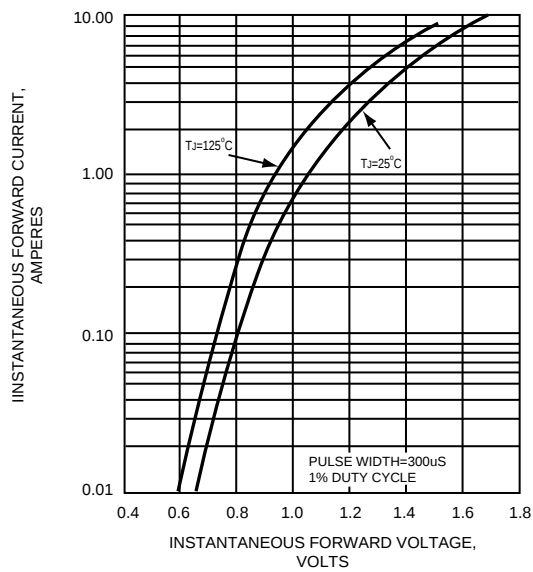
Absolute Maximum Ratings (Ta = 25 °C)

ITEM	Symbol	Conditions	BYD37Z					Unit
			DH	GH	JH	KH	MH	
Repetitive peak reverse voltage	VRRM		200	400	600	800	1000	V
Average forward current	IF(AV)		1.0					A
Peak forward surge current	IFSM	8.3ms single half sine wave	30					A
Reverse surge	IRSM	30ms square wave	10					mA
Reverse recovery time	Trr	IF = 0.5A, IR = 1.0A, Irr = 0.25A	250			300		nS
Dielectric strength	Vdi	Terminals to case, DC 3 minutes	2.1					kV
Operating storage temperature Range	Tj,TSTG		-65 to +175					°C

Electrical characteristics (Ta = 25 °C)

ITEM	Symbol	Conditions	Min.	Typ.	Max.	Unit
Forward voltage	VF	IF = 1.0A Tj = 25 Tj = 125	- -	1.05 0.92	1.30 -	V
Repetitive peak reverse current	IRRM	VR = Max. VRRM Ta = 25 °C Ta = 125 °C	- -	0.10 -	1 30	uA
Junction capacitance	Cj	VR = 4V, f = 1.0 MHz	-	15	-	pF
ESD capability	HBM	IEC 61000-4-2(air) IEC 61000-4-2(contact)	- -	- -	10 4	kV
	MM	JEDEC EIA / JESD22-A115-A	-	-	1200	V
Thermal resistance	Rth(JA)	Junction to ambient (NOTE 1)	-	130	-	°C/W
	Rth(JL)	Junction to lead (NOTE 1, 2)	-	40	-	
	Rth(JC)	Junction to Case (NOTE 1)	-	40	-	

NOTES : (1) Thermal resistance from junction to ambient and from junction to lead P.C.B. mounted on 0.2 x 0.2" (5.0 x 5.0mm) copper pad areas.
(2) The thermal resistance is measured over the centered point of the copper pad.
(3) Preliminary draft.

FIG.1 - FORWARD CURRENT DERATING CURVE

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

FIG.3 - TYPICAL JUNCTION CAPACITANCE

FIG.4 - NON-REPETITIVE PEAK FORWARD SURGE CURRENT SINE WAVEFORM

FIG.5 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

FIG.6 - TYPICAL REVERSE CHARACTERISTICS PER BRIDGE ELEMENT
