

**BYD77ZDH AND BYD77ZGH**

● **FEATURES**

- \* Halogen-free type
- \* Compliance to RoHS product
- \* GPRC (Glass passivated rectifier chip) inside
- \* Lead less chip form, no lead damage
- \* Low power loss, High efficiency
- \* High current capability
- \* Plastic package has Underwriters Laboratory Flammability Classification 94V-0

● **APPLICATION**

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

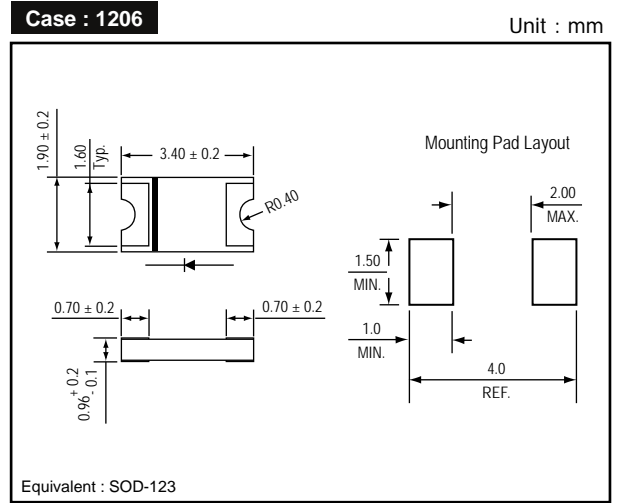
● **MECHANICAL DATA**

**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

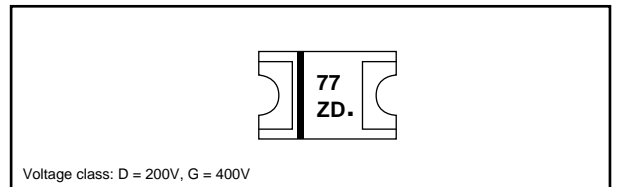
● **PACKING**

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

● **OUTLINE DIMENSIONS**



● **MARKING**



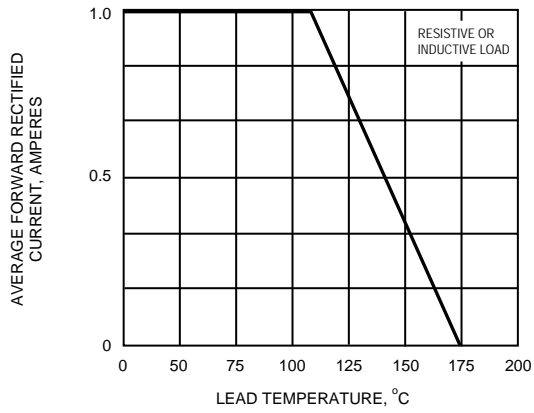
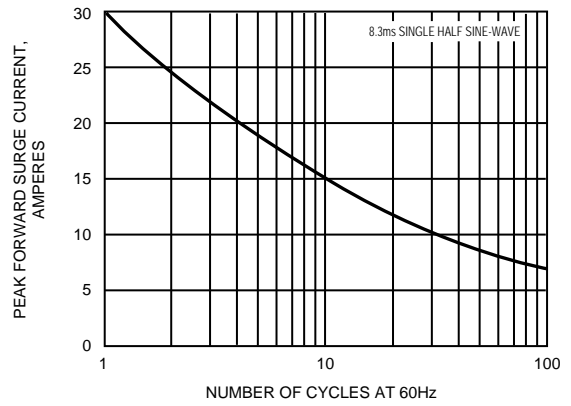
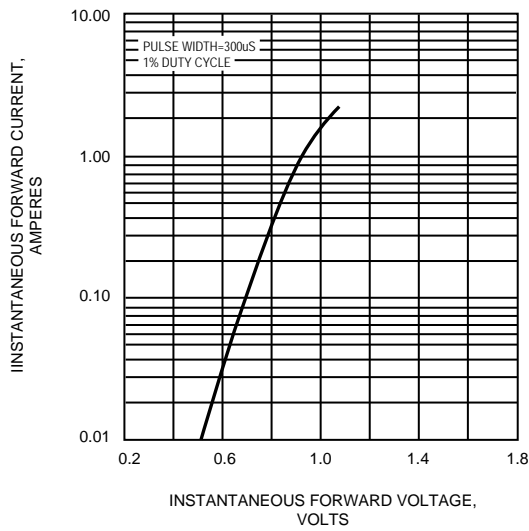
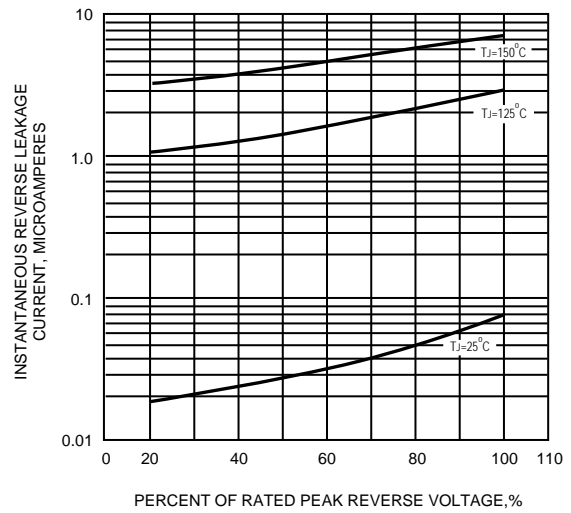
**Absolute Maximum Ratings (Ta = 25 °C)**

ITEM	Symbol	Conditions	BYD77ZDH	BYD77ZGH	Unit
Repetitive peak reverse voltage	VRRM	T <sub>L</sub> = 25 °C	200	400	V
Average forward current	I <sub>F(AV)</sub>		1.0		A
Peak forward surge current	I <sub>FSM</sub>	8.3ms single half sine-wave	30		A
Reverse recovery time	T <sub>rr</sub>	I <sub>F</sub> = 0.5A, I <sub>R</sub> = 1.0A, I <sub>rr</sub> = 0.25A	50		nS
Operating storage temperature Range	T <sub>j</sub> , T <sub>STG</sub>		-65 to +175		°C

**Electrical characteristics (Ta = 25 °C)**

ITEM	Symbol	Conditions	Min.	Typ.	Max.	Unit
Forward voltage	V <sub>F</sub>	I <sub>F</sub> = 0.1A	-	0.73	-	V
		I <sub>F</sub> = 0.5A	-	0.89	-	
		I <sub>F</sub> = 1.0A	-	0.98	1.00	
Repetitive peak reverse current	I <sub>RRM</sub>	V <sub>R</sub> = Max. VRRM, Ta = 25 °C	-	0.08	1	uA
Junction capacitance	C <sub>j</sub>	V <sub>R</sub> = 4V, f = 1.0 MHz	-	10	-	pF
Thermal resistance	R <sub>th(JA)</sub>	Junction to ambient (NOTE 1)	-	90	-	°C/W
	R <sub>th(JL)</sub>	Junction to lead (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) Preliminary draft.

**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**

**FIG.5 - TYPICAL JUNCTION CAPACITANCE**
