



# BYD17Z SERIES

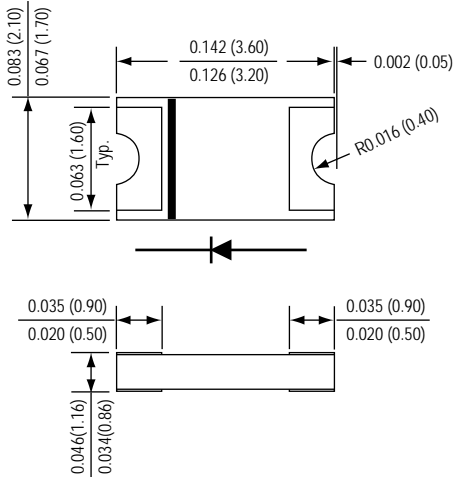
## SURFACE MOUNT GLASS PASSIVATED JUNCTION RECTIFIER

Reverse Voltage - 200 to 1000 Volts

Forward Current - 1.0 Ampere

**PATENTED**

1206



\*Dimensions in inches and (millimeters)

**SuperChip**<sup>TM</sup>  
**SUPEREX II**<sup>TM</sup>



\* Equivalent to SOD87, GL1M , SOD123

### FEATURES

- \* Lead free product
- \* Leadless chip form , no lead damage
- \* Lead-free solder joint , no wire bond & lead frame
- \* Low profile package
- \* For surface mounted applications
- \* Built-in strain relief
- \* Low power loss , High efficiency
- \* High current capability
- \* High surge capacity
- \* Plastic package has Underwriters Laboratory Flammability Classification 94V-0

### MECHANICAL DATA

**Case :** Packed with FRP substrate and epoxy underfilled

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

**Polarity :** Cathode Band, Laser marking

**Weight :** 0.012 gram

### MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25 °C ambient temperature unless otherwise specified.	SYMBOLS	BYD17ZD	BYD17ZG	BYD17ZJ	BYD17ZK	BYD17ZM	UNITS
Maximum repetitive peak reverse voltage	VRRM	200	400	600	800	1000	Volts
Maximum RMS voltage	VRMS	140	280	420	560	700	Volts
Maximum DC blocking voltage	VDC	200	400	600	800	1000	Volts
Maximum average forward rectified current (SEE FIG.1)	I (AV)	1.0					Amps
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC Method)	IFSM	30					Amps
Maximum instantaneous forward voltage at 1.0 A	VF	1.0					Volts
Maximum DC reverse current at rated DC blocking voltage TA=25°C TA=125°C TA=150°C	IR	1 30 50					uA
Maximum reverse recovery time (NOTE 1)	trr	3000					nS
Typical junction capacitance (NOTE 2)	CJ	12					pF
Typical thermal resistance (NOTE 3)	R θJA R θJL	80 40					°C / W
Operating junction and storage temperature range	TJ,TSTG	-65 to +175					°C

NOTES : (1) Reverse recovery test condition : IF 0.5A, IR=1.0A, Irr=0.25A

(2) Measured at 1.0 MHz and applied reverse voltage of 4.0 Volts

(3) 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.

(4) Preliminary draft.

# RATINGS AND CHARACTERISTIC CURVES OF BYD17Z SERIES

FIG.1 - FORWARD CURRENT DERATING CURVE

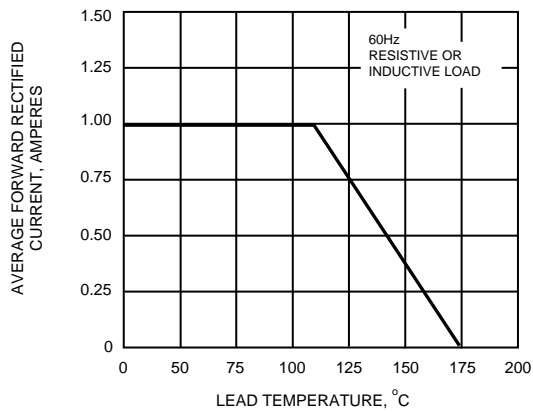


FIG.2 - MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

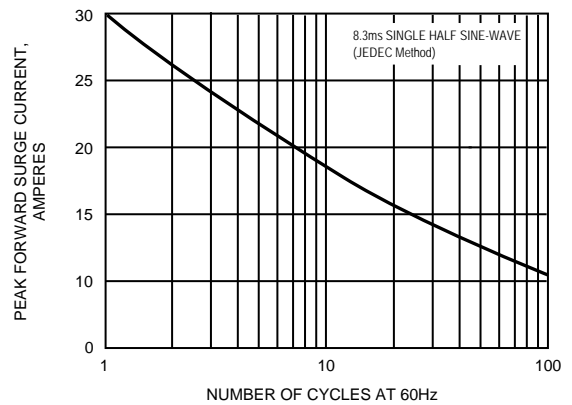


FIG.3 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

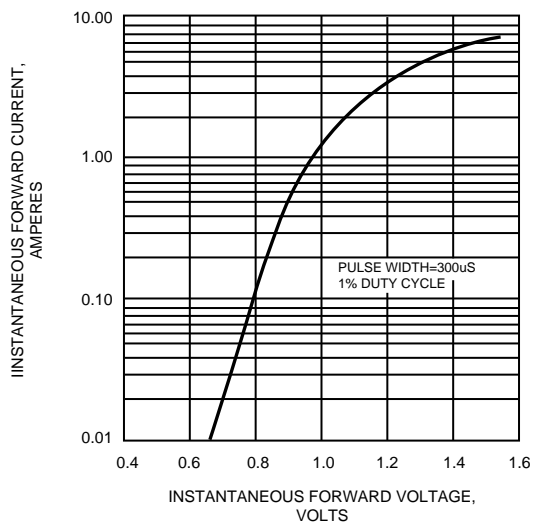


FIG.4 - TYPICAL REVERSE CHARACTERISTICS

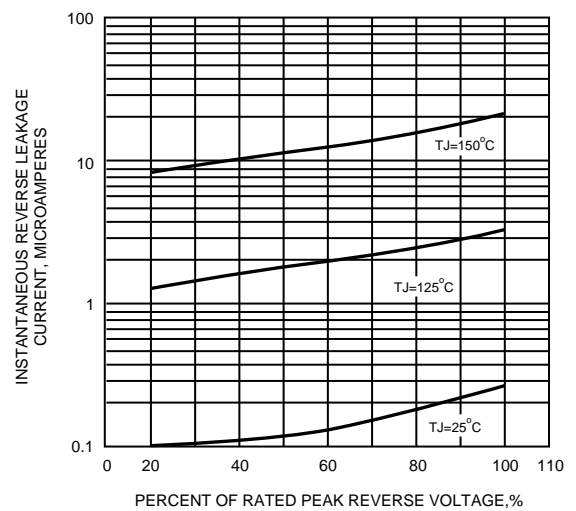


FIG.5 - TYPICAL JUNCTION CAPACITANCE

