



BYD187Z

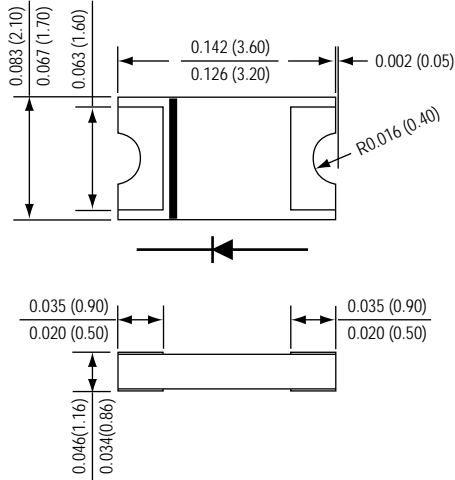
SURFACE MOUNT GLASS PASSIVATED JUNCTION ULTRAFAST EFFICIENT RECTIFIER

Reverse Voltage - 800 Volts

Forward Current - 1.0 Ampere

PATENTED

1206



*Dimensions in inches and (millimeters)

SuperChipTM
SUPEREX IITM



* 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

<i>Ratings at 25 °C ambient temperature unless otherwise specified.</i>	SYMBOLS	BYD187Z	UNITS
Maximum repetitive peak reverse voltage	VRRM	800	Volts
Maximum RMS voltage	VRMS	560	Volts
Maximum DC blocking voltage	VDC	800	Volts
Maximum average forward rectified current $T_L=110^{\circ}\text{C}$	I (AV)	1.0	Amps
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load	IFSM	25	Amps
Maximum instantaneous forward voltage at 1.0 A	VF	2.50	Volts
Maximum DC reverse current $T_A=25^{\circ}\text{C}$ at rated DC blocking voltage $T_A=125^{\circ}\text{C}$	IR	5 50	uA
Maximum reverse recovery time (NOTE 1)	trr	35	nS
Typical junction capacitance (NOTE 2)	CJ	10	pF
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) Preliminary draft.

RATINGS AND CHARACTERISTIC CURVES OF BYD187Z

FIG.1 - FORWARD CURRENT DERATING CURVE

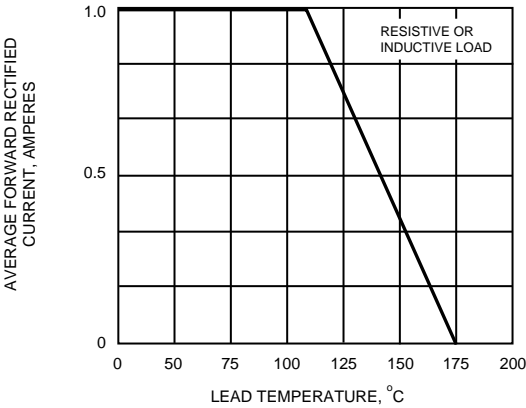


FIG.2 - MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

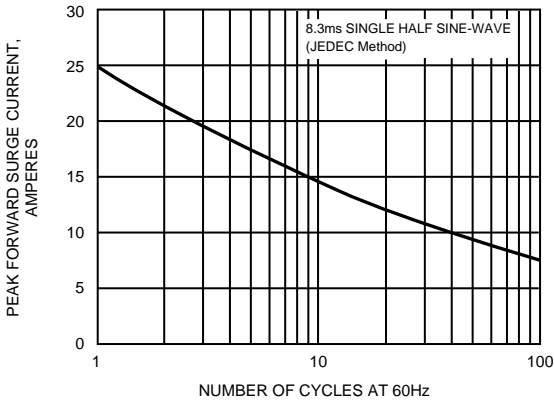


FIG.3 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

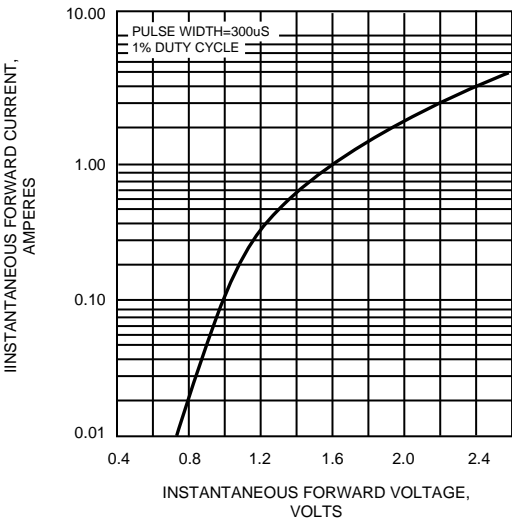


FIG.4 - TYPICAL REVERSE CHARACTERISTICS

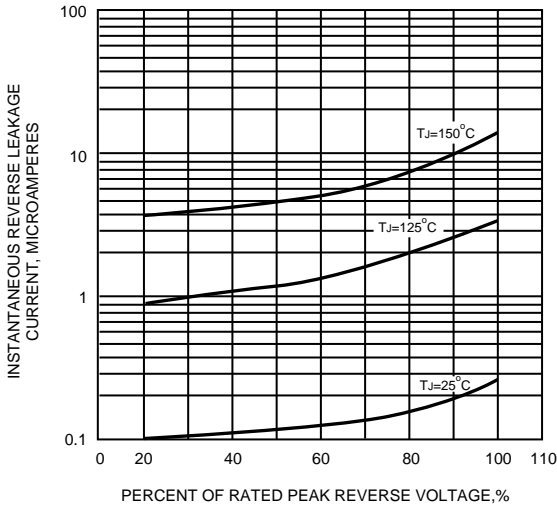


FIG.5 - TYPICAL JUNCTION CAPACITANCE

