

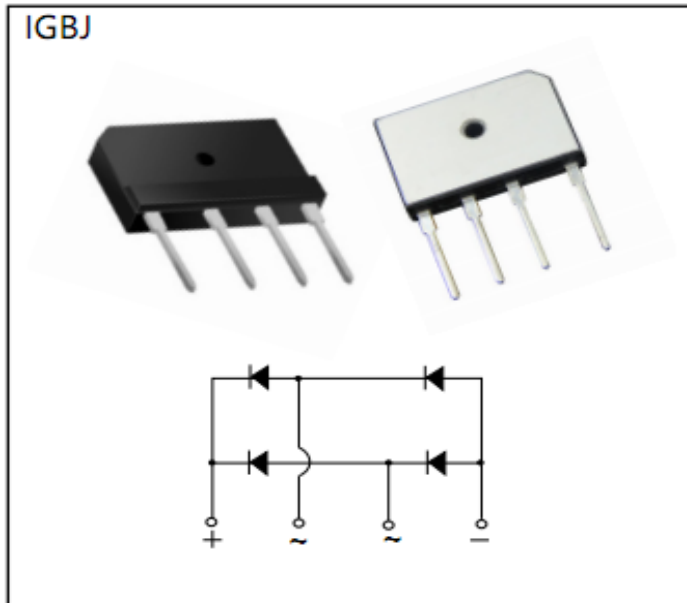
HD50SB10 Thru HD50SB120

High Current Glass Passivated Molding

Single-Phase Bridge Rectifier

Reverse Voltage 100 to 1200V
Forward Current 50 Amp

RoHS
COMPLIANT



Features

- Glass passivated die construction
- Ideal for printed circuit boards
- High surge current capability
- High temperature soldering guaranteed: 265°C /10 seconds, 0.375" (9.5mm) lead length, 5lbs. (2.3kg) tension
- Low thermal resistance

Mechanical Data

Case: Molded plastic case

Terminals: Plated leads solderable per MIL-STD-750, Method 2026

Polarity: Marked on Body

Mounting Position: Any

Maximum & Thermal Characteristics Ratings at 25°C ambient temperature unless otherwise specified.

Parameter Symbol		Symbol	HD50 SB10	HD50 SB20	HD50 SB40	HD50 SB60	HD50 SB80	HD50 SB100	HD50 SB120	Unit
Maximum repetitive voltage		VRRM	100	200	400	600	800	1000	1200	V
Maximum RMS Voltage		VRMS	70	140	280	420	560	700	840	V
Maximum DC Blocking Voltage		VDC	100	200	400	600	800	1000	1200	V
Maximum DC reverse current TA=25 °C		IR	5							μA
at rated DC blocking voltage TA=125℃			500							
Maximum average forward rectified output current at	With heatsink Tc=100℃ ⁽¹⁾	Io	50							A
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load		IFSM	500							A
Rating of fusing (t<8.3ms)		i ² t	1038							A2sec
Dielectric strength terminals to case, AC 1 minute Current 1mA		Vdia	2.5							KV
Max instantaneous forward voltage at 25A		VF	1.1							V
Operating junction temperature		TJ	-55~150							℃
Maximum thermal on P.C.B. without heat-sink		RθJA	15							℃/W
resistance per leg on Al plate heat-sink ⁽²⁾		RθJC	0.75							
Storage temperature		Tstg	-55~150							℃
Mounting torque		Tor	Rating Torque : 0.8 (Suggests 0.45~0.65)							N.m

Notes:

(1) Unit case mounted on aluminum plate heatsink

(2) Device mounted on the heat sink

Performance Curves

HD50SB10 Thru HD50SB120

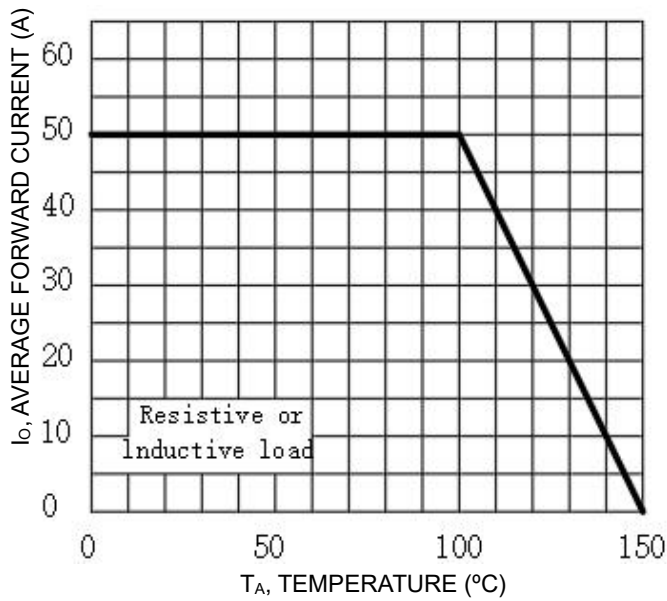


Fig.1 Forward Current Derating Curve

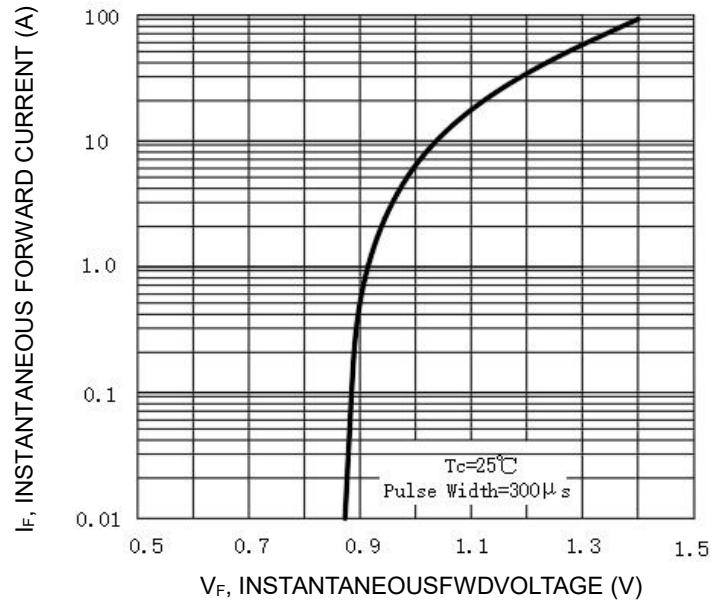


Fig.2 Typical Forward Characteristics, per element

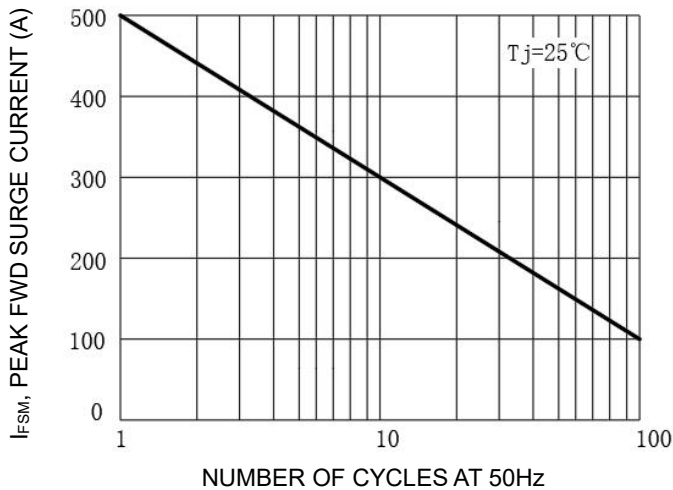


Fig.3 Max Non-Repetitive Surge Current

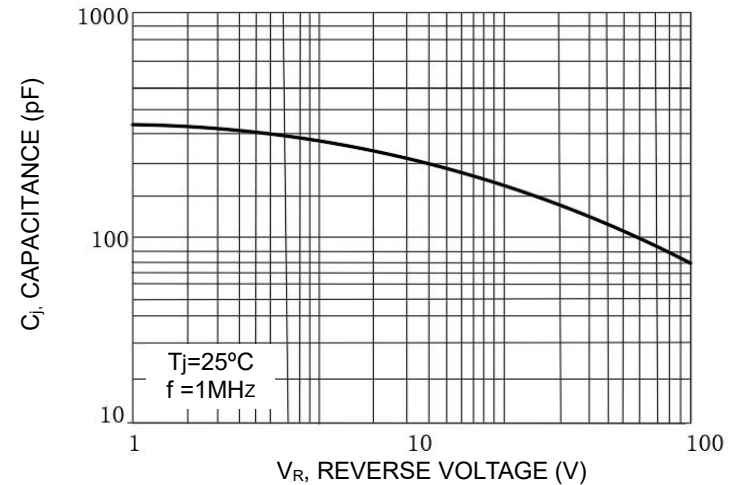


Fig.4 Typical Junction Capacitance per Element

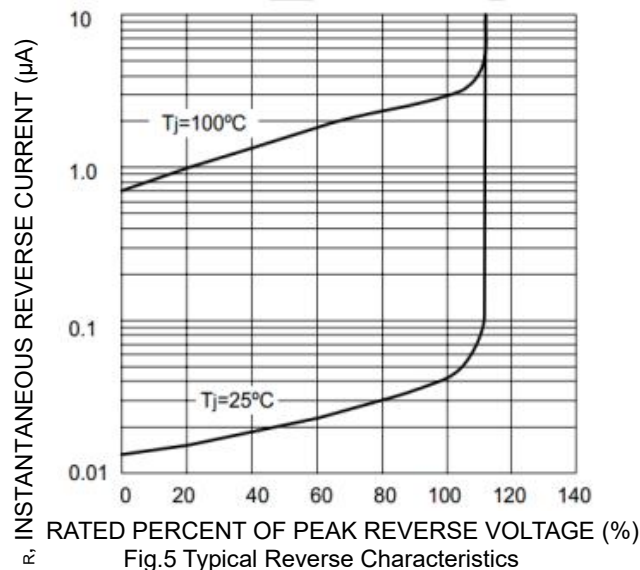
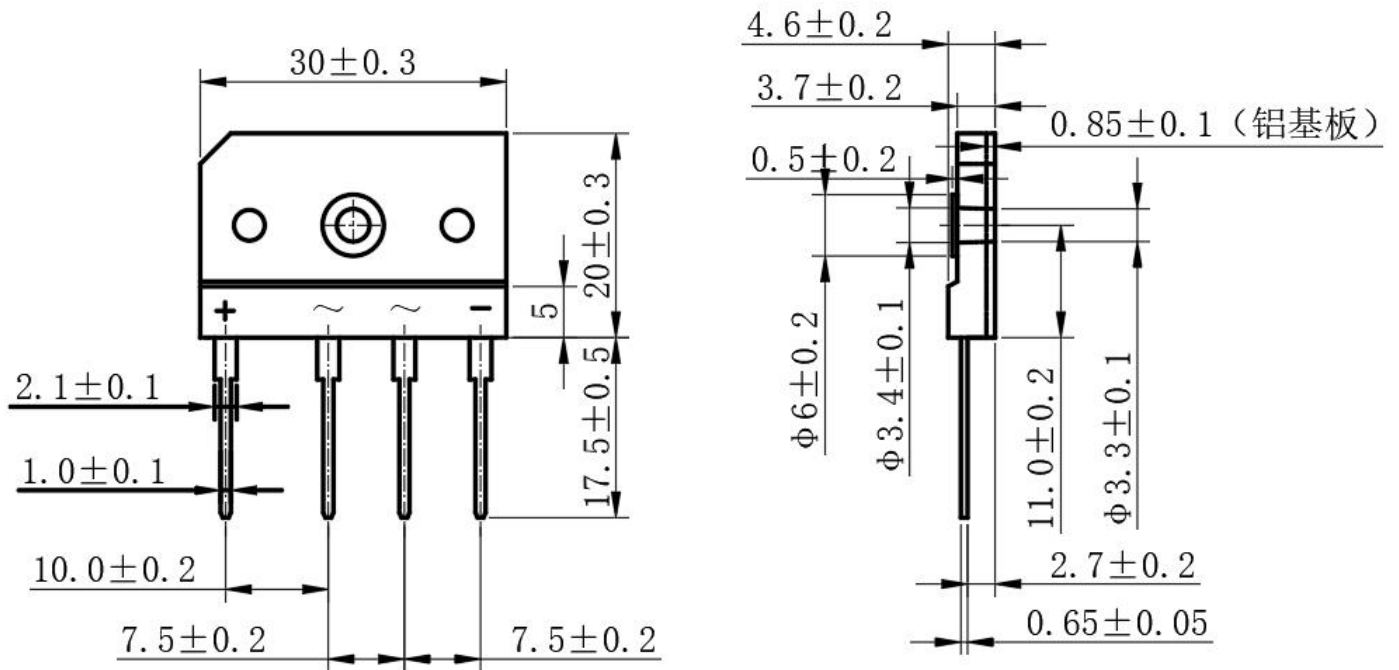


Fig.5 Typical Reverse Characteristics

Package Outline Information

CASE: IGBJ



Dimensions in inches (mm)