

3.0A Single-Phase Glass Passivated Bridge Rectifiers

Rectifier Reverse Voltage 50V to 1000V



MSB

Features

- Glass passivated junction
- The plastic material used carries Underwriters Laboratory flammability recognition 94V-0
- Surge overload ratings to 50 amperes peak
- Ideal for printed circuit board application
- High temperature soldering guaranteed 265°C/10 seconds at 5 lbs(2.3kg)tension

Mechanical Data

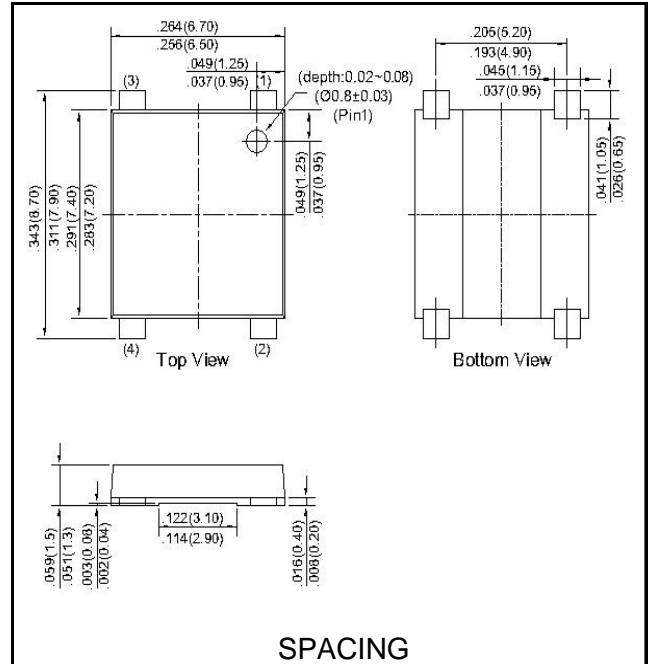
Case:Molded plastic

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

Polarity:Polarity symbols molded or Marked on body

Mounting Position:Any

Weight:0.007ounce,0.2 grams(approx)



Maximum Ratings & Thermal Characteristics

Rating at 25°C ambient temperature unless otherwise specified,Resistive or inductive load,60HZ.

For Capacitive load derate current by 20%

Parameter	Symbol	MSB30A	MSB30B	MSB30D	MSB30G	MSB30J	MSB30K	MSB30M	unit
Maximum repetitive peak reverse voltage	VRRM	50	100	200	400	600	800	1000	V
Maximum RMS bridge input voltage	VRMS	35	70	140	280	420	560	700	V
Maximum DC blocking voltage	VDC	50	100	200	400	600	800	1000	V
Maximum average forward rectified output current at TA=40°C	IF(AV)	3.0							A
Peak forward surge current single sine-wave superimposed on rated load (JEDEC Method)	IFSM	80							A
Rating for fusing(t<8.3ms)	I ² t	50							A ² sec
Typical thermal resistance per element(1)	ReJA	110							°C/w
Typical thermal resistance per element(2)	Cj	25.0							PF
Operating junction and stroage temperature range	TJ, TSTG	-55to+150							°C

Electrical Characteristics

Rating at 25°C ambient temperature unless otherwise specified,Resistive or inductive load,60HZ.

For Capacitive load derate current by 20%

Parameter	Symbol	MSB30A	MSB30B	MSB30D	MSB30G	MSB30J	MSB30K	MSB30M	unit
Maximum instantaneous forward voltage drop per leg at 3.0A	VF	1.1							V
Maximum DC reverse current at ratde TA=25°C	IR	10							UA
DC blocking voltage per element TA=125°C		500							

Notes:(1)Thermal resistance from Junction to Ambient on P.C.board mounting.

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

Rating and Characteristic Curves (TA=25°C Unless otherwise noted)

FIG.1-FORWARD CURRENT DERATING

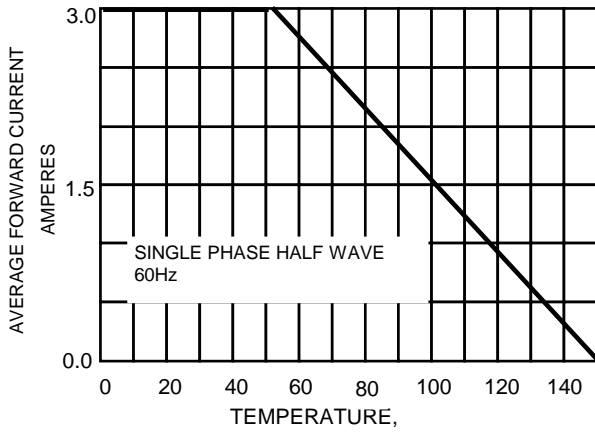


FIG.2-MAXIMUM NON-REPETITIVE SURGE CURRENT

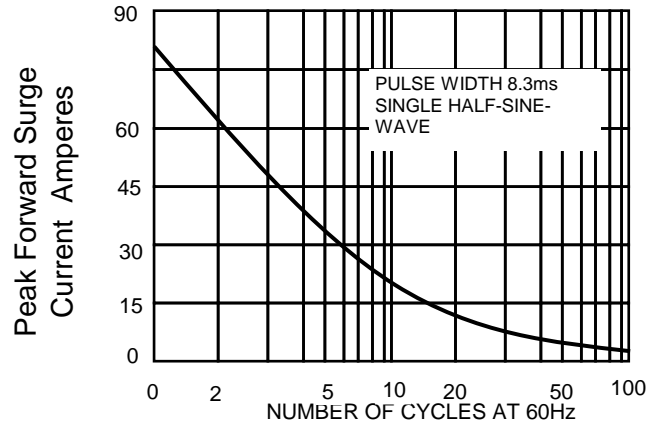


FIG.3-TYPICAL JUNCTION

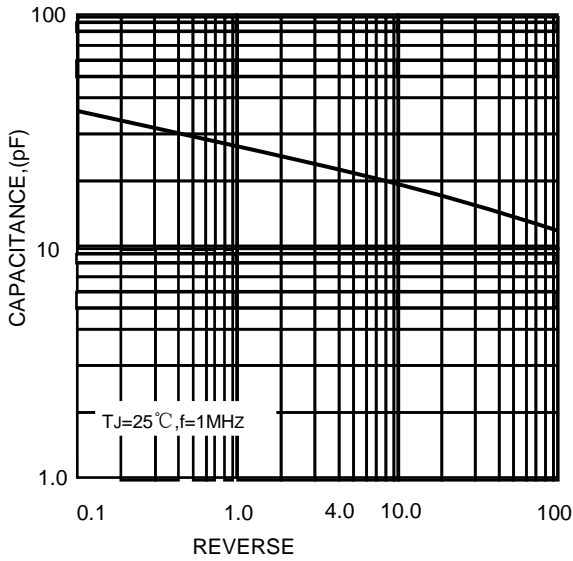


FIG.4-TYPICAL FORWARD CHARACTERISTICS

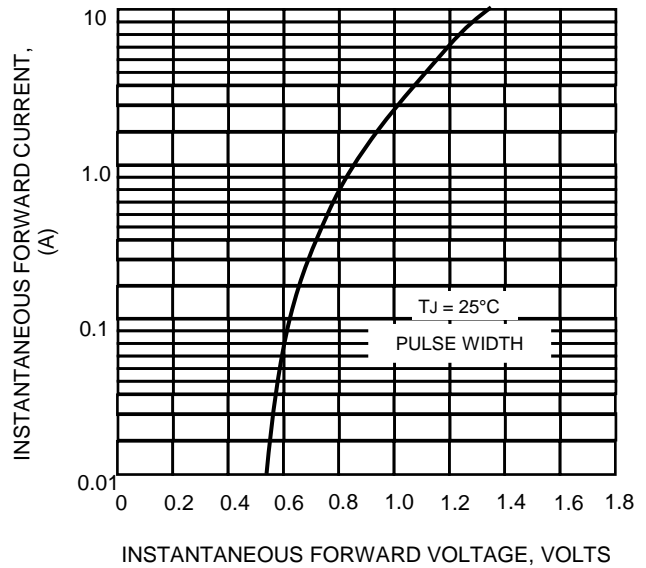
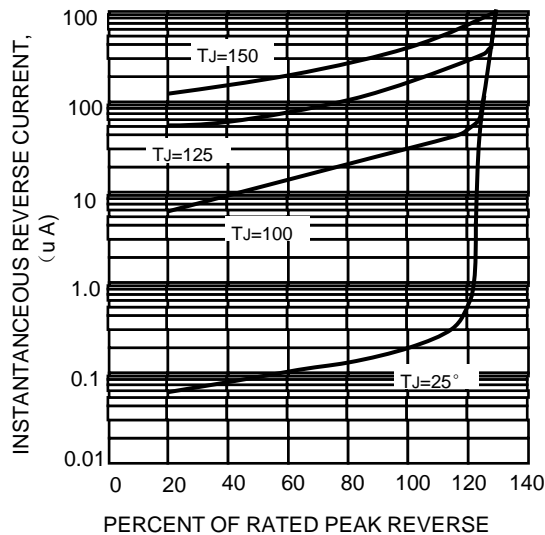
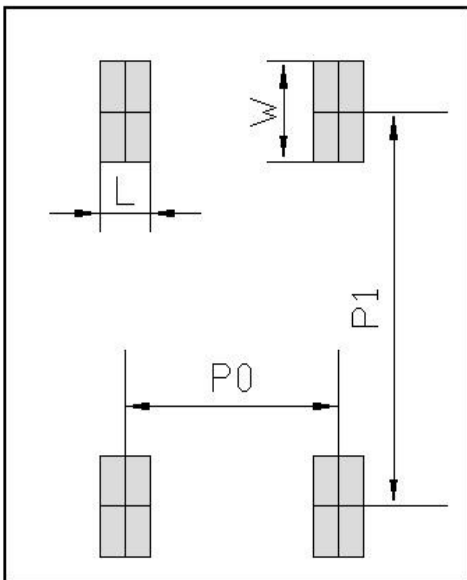


FIG.5-TYPICAL REVERSE



Ordering Information(Example)

PREFFREN P/N	UNIT WEIGHT(g)	MINIMUM PACKAGE(pcs)	INNER BOX QUANTITY(pcs)	OUTER CARTON QUANTITY(pcs)	DELIVERY MODE
MSB30A~MSB30M	Approximate 0.20	3000	6000	36000	REEL

Suggested pad layout


Dimensions in millimeters

Unit:mm	
DIM	MIN
P0	5.12
P1	8.73
L	1.2
W	2.22