

### Single Phase 3.0Amp Fast Recovery Bridge Rectifiers

#### Features

- The plastic package carries Underwriters Laboratory Flammability Classification 94V-0
- Idea for printed circuit board
- Glass passivated junction chip
- Low reverse leakage
- High forward surge current capability
- High temperature soldering guaranteed  
260 °C/10 seconds at terminals

#### Mechanical Data

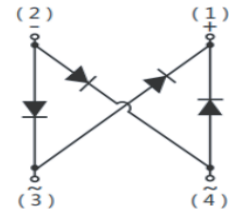
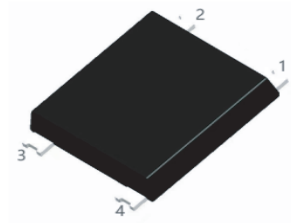
**Case** : Molded plastic body

**Terminals** : Solder plated, solderable per MIL-STD-750, Method 2026

**Polarity** : Polarity symbol marking on body

**Mounting Position** : Any

#### MSB Package



#### Maximum Ratings And Electrical Characteristics

Ratings at 25 °C ambient temperature unless otherwise specified. Single phase half-wave 60Hz, resistive or inductive load, for capacitive load current derate by 20%.

Parameter	SYMBOLS	RMSB30M	UNITS
Maximum repetitive peak reverse voltage	$V_{RRM}$	1000	V
Maximum RMS voltage	$V_{RMS}$	700	V
Maximum DC blocking voltage	$V_{DC}$	1000	V
Maximum average forward rectified current at $T_L=100^\circ C$	$I_{(AV)}$	3.0	A
Peak forward surge current, 8.3ms single half sine-wave superimposed on rated load	$I_{FSM}$	120.0	A
Rating for fusing ( $t=8.3ms, T_a=25^\circ C$ )	$I_t^2$	59.76	$A^2s$
Maximum instantaneous forward voltage at 3.0A	$V_F$	1.3	V
Maximum DC reverse current $T_A = 25^\circ C$ at rated DC blocking voltage $T_A = 125^\circ C$	$I_R$	2.0 200	$\mu A$
Maximum Reverse Recovery Time (Note 1)	TRR	250	ns
Typical junction capacitance (Note 2)	$C_J$	40	pF
Typical thermal resistance	$R_{qJA}$	40	$^\circ C/W$
Operating junction and storage temperature range	$T_J, T_{STG}$	-55 to +150	$^\circ C$

**Note:** 1. Reverse Recovery Test Conditions:  $I_F=0.5A, I_R=1.0A, I_{RR}=0.25A$   
2. Measured at 1MHz and applied reverse voltage of 4.0V D.C.

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### Ratings And Characteristic Curves

FIG. 1- DERATING CURVE OUTPUT RECTIFIED CURRENT

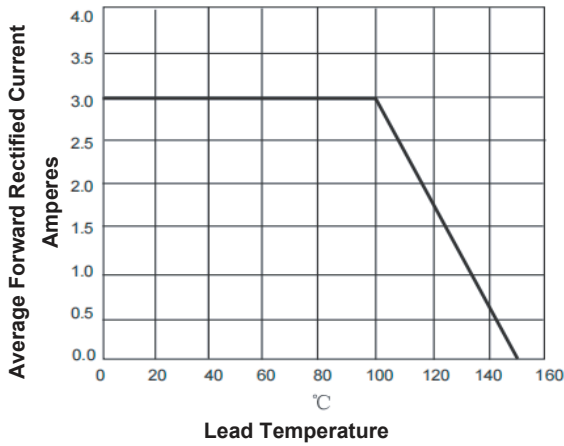


FIG. 2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT PER LEG

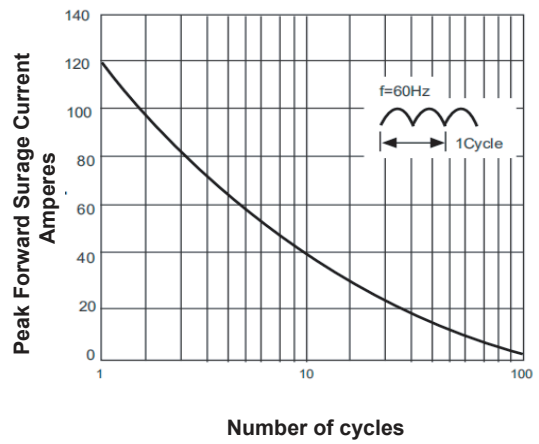


FIG. 3-TYPICAL FORWARD VOLTAGE CHARACTERISTICS

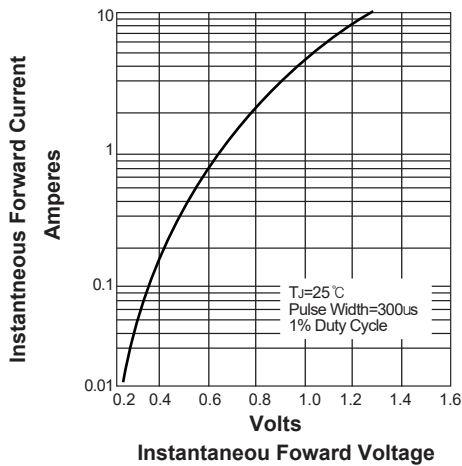
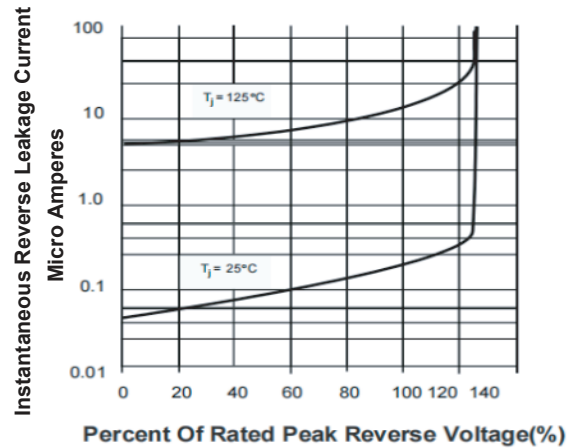


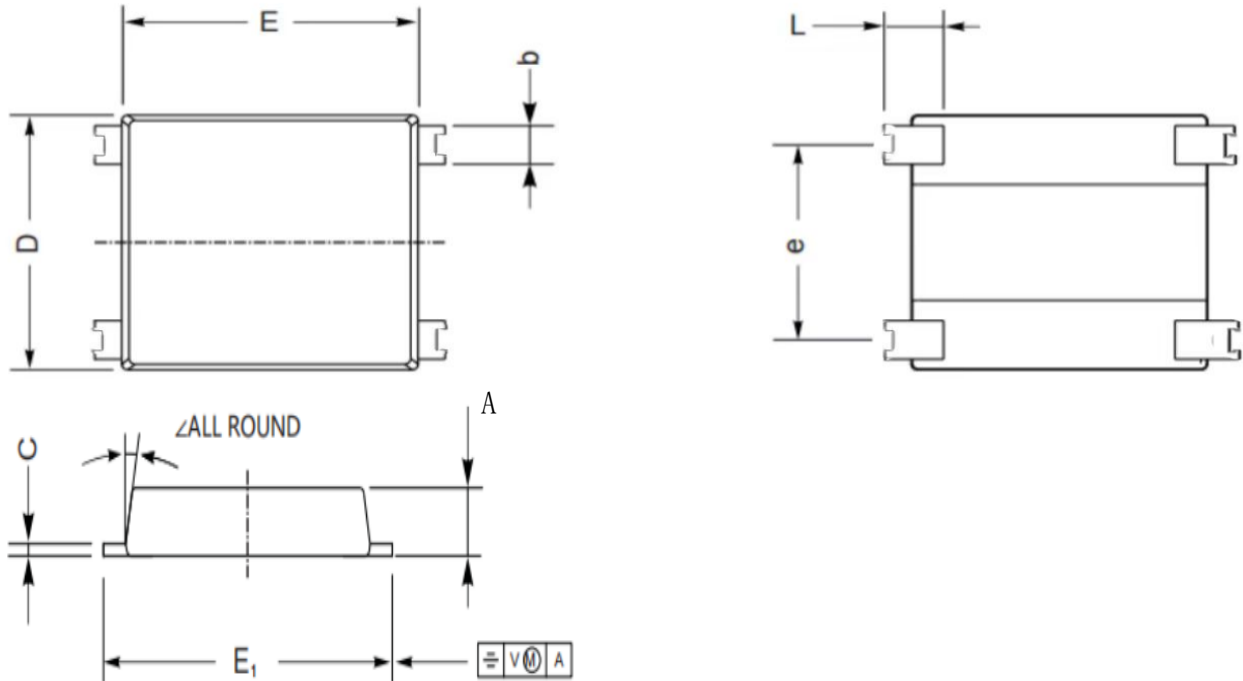
FIG. 4-TYPICAL REVERSE LEAKAGE CHARACTERISTICS



## Single Phase 3.0Amp Fast Recovery Bridge Rectifiers

### PACKAGE OUTLINE DIMENSIONS

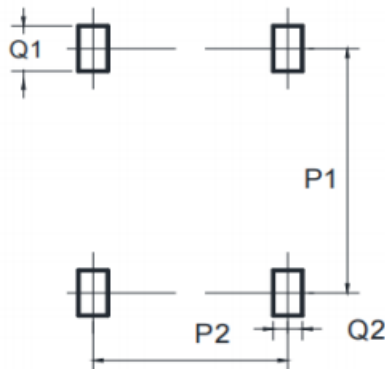
MSB



### MSB mechanical data

UNIT		A	C	D	E	E1	L	e	b	∠
mm	max	1.5	0.29	7.0	7.6	8.9	1.6	5.3	1.15	7°
	min	1.3	0.17	6.2	7.1	8.4	1.0	4.9	0.95	
mil	max	59	12	276	299	350	63	209	45	
	min	51	7	244	280	331	39.3	193	37	

### MSB Suggested Pad Layout



UNIT		P1	P2	Q1	Q2
mm	min	8.30	5.10	1.6	1.2
mil	min	326.77	200.79	63.0	47.25

Dimensions is millimeters