

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

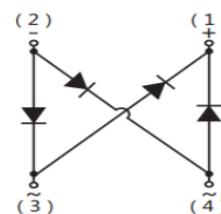
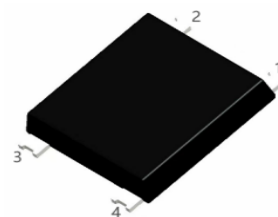
Case : Molded plastic body

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	RMSB30BA	RMSB30DA	RMSB30GA	RMSB30JA	RMSB30KA	RMSB30MA	UNITS
Maximum repetitive peak reverse voltage	V _{RRM}	100	200	400	600	800	1000	V
Maximum RMS voltage	V _{RMS}	70	140	280	420	560	700	V
Maximum DC blocking voltage	V _{DC}	100	200	400	600	800	1000	V
Maximum average forward rectified current at T _L =100°C	I _(AV)	3.0						A
Peak forward surge current, 8.3ms single half sine-wave superimposed on rated load	I _{FSM}	100.0						A
Rating for fusing (t=8.3ms, T _a =25°C)	I ² _t	41.5						A ² s
Maximum instantaneous forward voltage at 3.0A	V _F	1.3						V
Maximum DC reverse current T _A =25°C at rated DC blocking voltage T _A =125°C	I _R	2.0 200						μA
Maximum Reverse Recovery Time (Note 1)	TRR	150			250	500		ns
Typical junction capacitance (Note 2)	C _J	40						pF
Typical thermal resistance	R _{qJA}	40						°C/W
Operating junction and storage temperature range	T _J ,T _{STG}	-55 to +150						°C

Note: 1. Reverse Recovery Test Conditions: $I_F=0.5\text{A}$, $I_R=1.0\text{A}$, $I_{RR}=0.25\text{A}$

2. Measured at 1MHz and applied reverse voltage of 4.0V D.C.

Ratings And Characteristic Curves

FIG. 1- DERATING CURVE OUTPUT RECTIFIED CURRENT

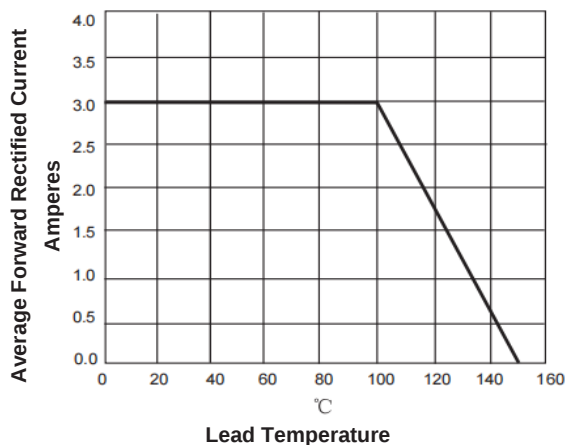


FIG. 2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT PER LEG

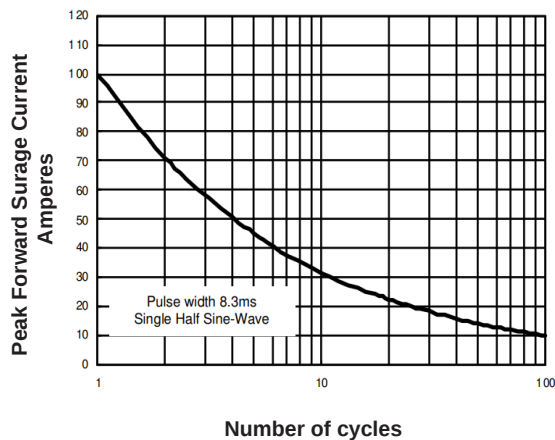


FIG. 3-TYPICAL FORWARD VOLTAGE CHARACTERISTICS

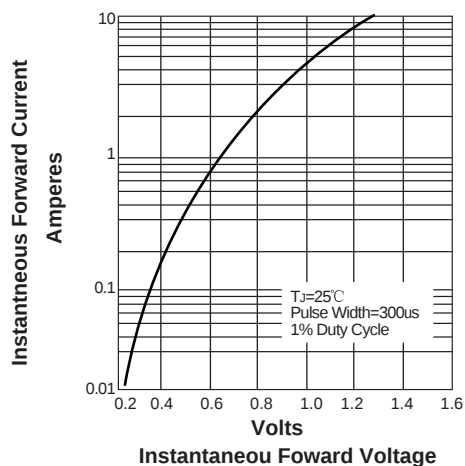
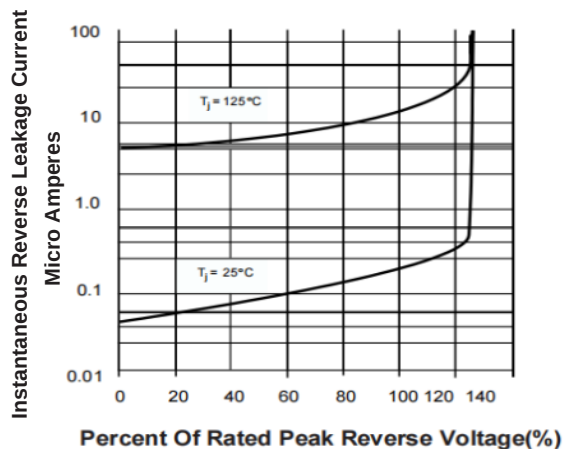
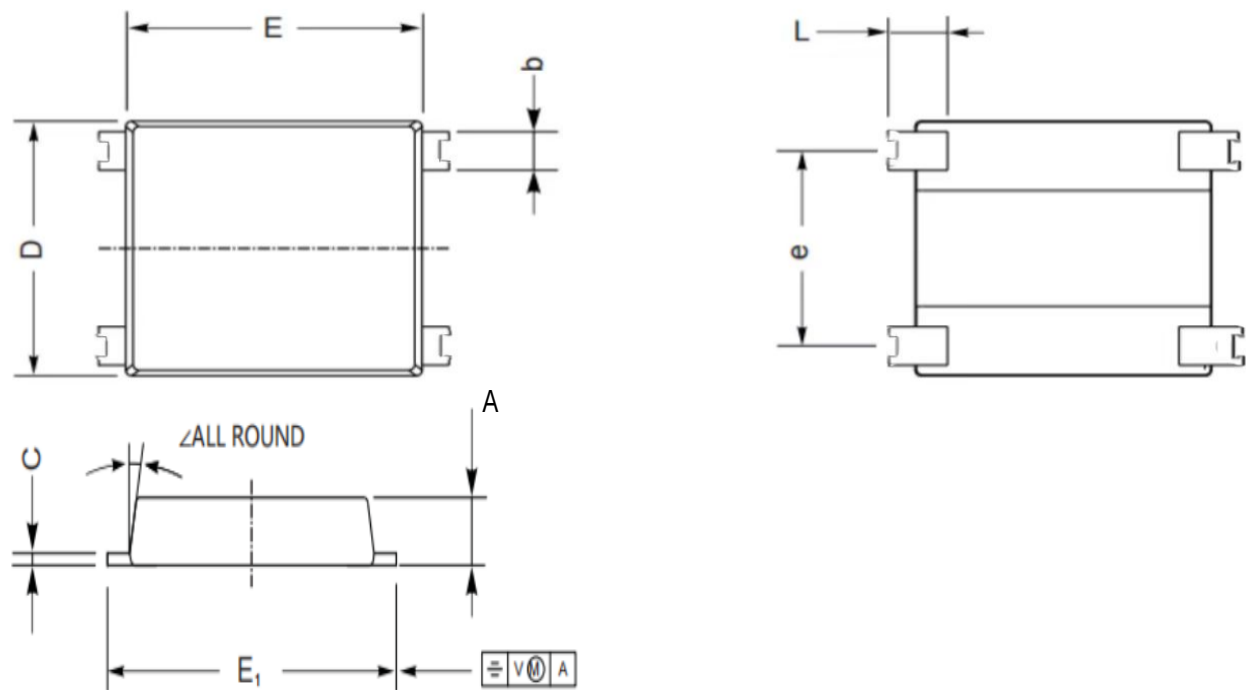


FIG. 4-TYPICAL REVERSE LEAKAGE CHARACTERISTICS



PACKAGE OUTLINE DIMENSIONS

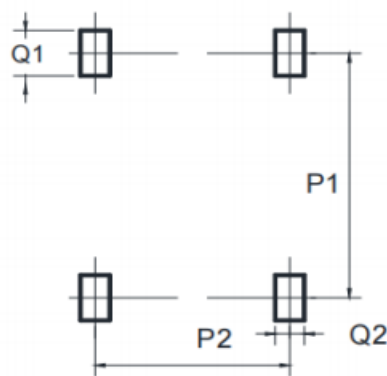
MSB



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



Dimensions is millimeters

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