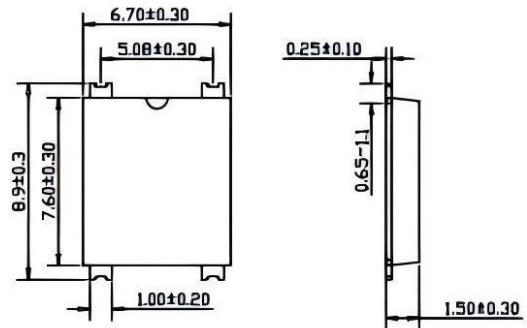
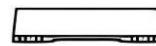
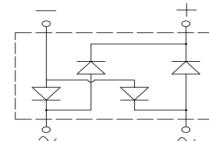


Features

- ◆ 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 250°C/10 seconds at terminals

MSB PackageRoHS
COMPLIANT**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

Dimensions in millimeters

**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	MSB3005	MSB301	MSB302	MSB304	MSB306	MSB308	MSB310	UNITS
Maximum repetitive peak reverse voltage	V_{RRM}	50	100	200	400	600	800	1000	V
Maximum RMS voltage	V_{RMS}	35	70	140	280	420	560	700	V
Maximum DC blocking voltage	V_{DC}	50	100	200	400	600	800	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}	80.0						A	
Rating for fusing ($t=8.3ms$, $T_a=25^\circ C$)	I^2t	26.56						A^2s	
Maximum instantaneous forward voltage at 3.0A	V_F	1.10						V	
Maximum DC reverse current $T_a=25^\circ C$ at rated DC blocking voltage $T_a=125^\circ C$	I_R	5.0 500						μA	
Typical junction capacitance (Note 1)	C_J	32.0						pF	
Typical thermal resistance	R_{QJA}	55.0						$^\circ C/W$	
Operating junction and storage temperature range	$T_{J,T_{STG}}$	-55 to +150						$^\circ C$	

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

Ratings And Characteristic Curves

FIG. 1- DERATING CURVE OUTPUT RECTIFIED CURRENT

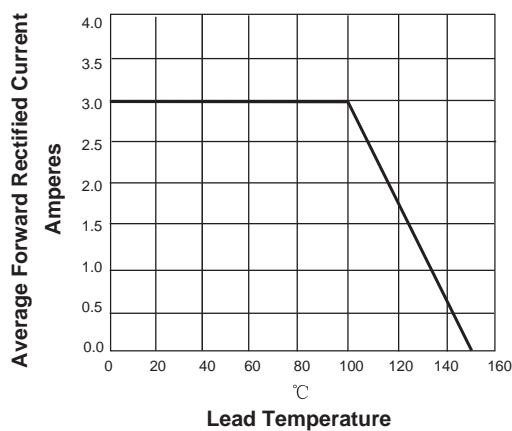


FIG. 2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT PERLEG

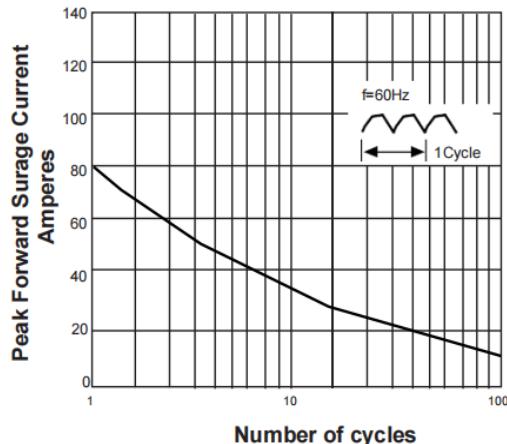


FIG. 3-TYPICAL FORWARD VOLTAGE CHARACTERISTICS

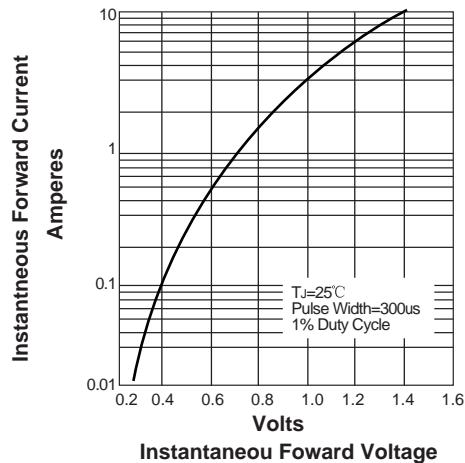
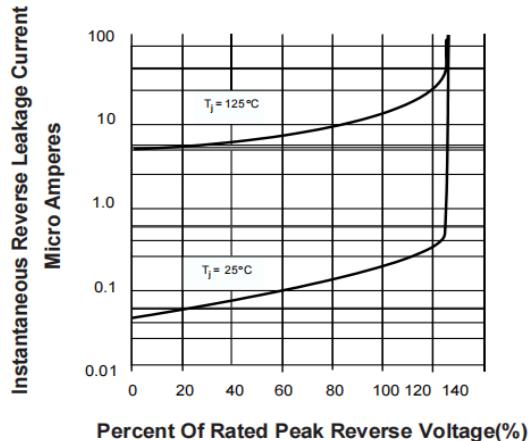
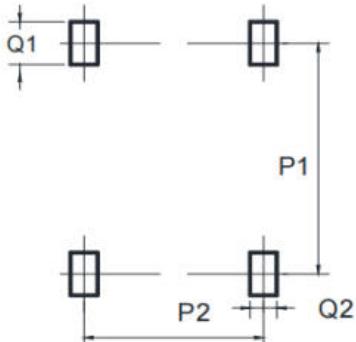


FIG. 4-TYPICAL REVERSE LEAKAGE CHARACTERISTICS

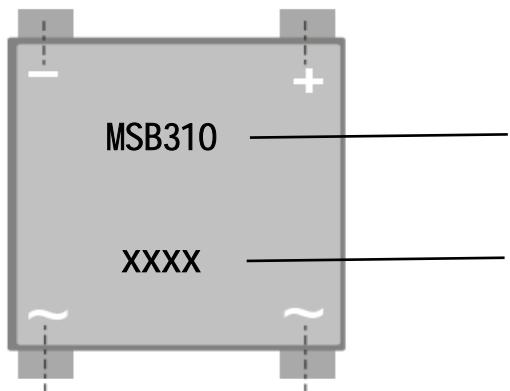


MSB Suggested Pad Layout



Dimensions is millimeters

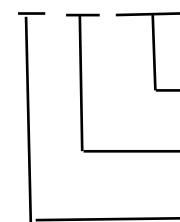
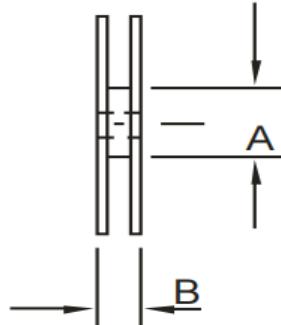
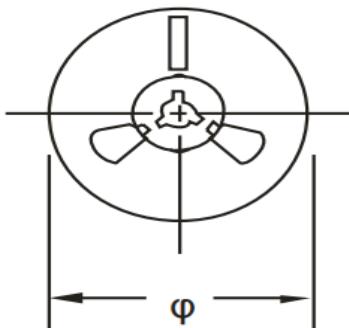
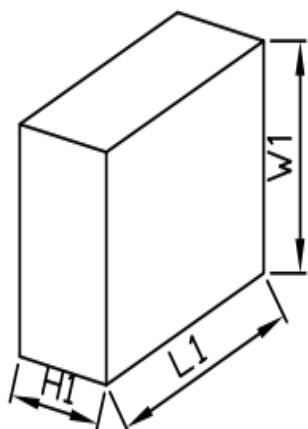
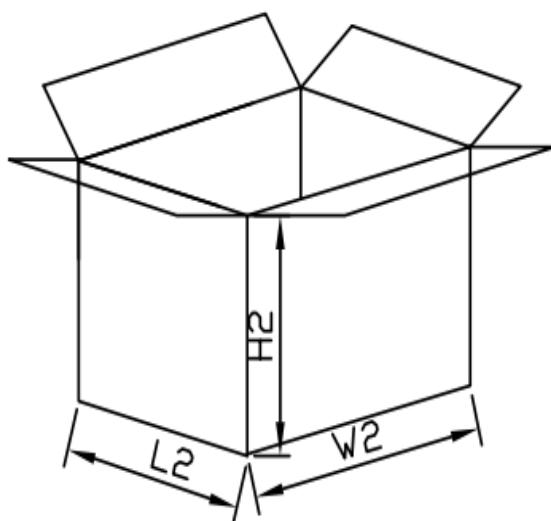
UNIT		P1	P2	Q1	Q2
mm	min	8.30	5.10	1.6	1.2
mil	min	326.77	200.79	63.0	47.25

Marking Information

Product model : MSB3005/01/02/04/06/08/10

PDC information :

X X X X

**Packaging Information****1. Reel Dimensions****2. Inside Box****3. Outside Box**

Packaging Information

NO	UNIT	Reel Dimensions			Inside Box			Outside Box		
Size	mm	ϕ	A	B	L1	W1	H1	L2	W2	H2
		330	100	15	340	340	46	360	360	270
QTY	PCS	Smallest package,3000PCS/reel			6,000PCS,2 reel in total			30,000PCS/carton,5boxes in total		
Note	Tolerance			$\leq 20\text{mm}, \pm 3\text{mm};$			$21\text{-}100\text{mm}, \pm 5\text{mm};$			$101\text{-}500\text{mm}, \pm 10\text{mm}$