

RoHS Compliant Product  
 A suffix of "-C" specifies halogen & lead-free

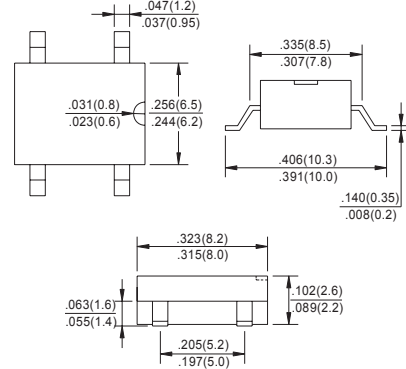
## FEATURES

- Low forward voltage drop, high current capability
- Rating to 1000V PRV
- Ideal for printed circuit board
- Reliable low cost construction utilizing molded plastic technique results in inexpensive products
- Lead tin Pb / Sn copper
- The plastic material has UL flammability classification 94V-0

## MECHANICAL DATA

- Polarity: As marked on Body
- Weight: 0.02 ounces, 0.38 grams
- Mounting position: Any

**DB-1S**



Dimensions in inches and (millimeters)

## MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Rating at 25°C ambient temperature unless otherwise specified.  
 Single phase, half wave, 60Hz, resistive or inductive load.  
 For capacitive load, de-rate current by 20%.

PARAMETERS	SYMBOL	DB	DB	DB	DB	DB	DB	DB	UNIT
		1501S	1502S	1503S	1504S	1505S	1506S	1507S	
Peak Repetitive Peak Reverse Voltage	$V_{RRM}$	50	100	200	400	600	800	1000	V
Working Peak Reverse Voltage	$V_{RMS}$	35	70	140	280	420	560	700	
DC Blocking Voltage	$V_{DC}$	50	100	200	400	600	800	1000	
Maximum Average Forward Rectified Current @ $T_A=40^\circ C$	$I_{(AV)}$	1.5							A
Peak Forward Surge Current 8.3 ms Single Half Sine-Wave Super Imposed on Rated Load (JEDEC Method)	$I_{FSM}$	50							A
Maximum Forward Voltage at 1.5 A DC	$V_F$	1.1							V
Maximum DC Reverse Current @ $T_J=25^\circ C$ at Rated DC Blocking Voltage @ $T_J=125^\circ C$	$I_R$	10 500							$\mu A$
$I^2t$ Rating for Fusing ( $t < 8.3ms$ )	$I^2t$	10.4							$A^2s$
Typical Junction Capacitance Per Element (Note1)	$C_J$	25							pF
Typical Thermal Resistance (Note2)	$R_{\theta JA}$	40							$^\circ C/W$
Operating and Storage temperature range	$T_J, T_{STG}$	-55 ~ 150							$^\circ C$

Note: 1. Measured at 1.0 MHz and applied reverse voltage of 4.0 V DC  
 2. Thermal resistance from junction to ambient mounted on P.C.B. with 0.5\*0.5"(13\*13mm) copper pads.

**RATINGS AND CHARACTERISTIC CURVES**

FIG. 1 - Forward Current Derating Curve

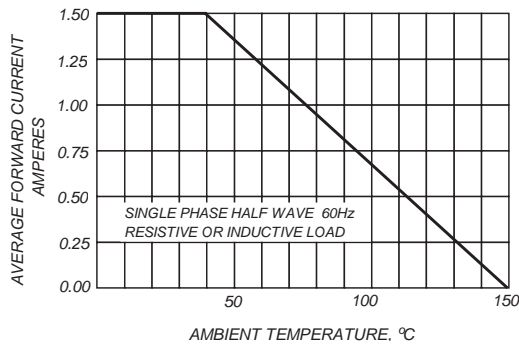


FIG.2-MAXIMUM NON-REPETITIVE SURGE CURRENT

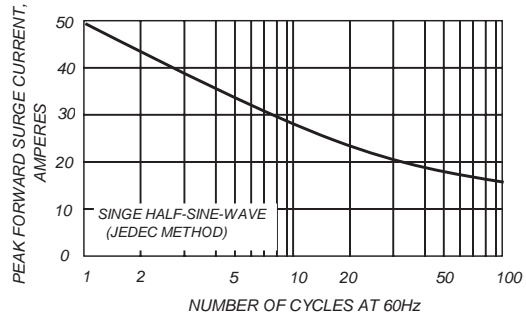


FIG.3-TYPICAL JUNCTION CAPACITANCE

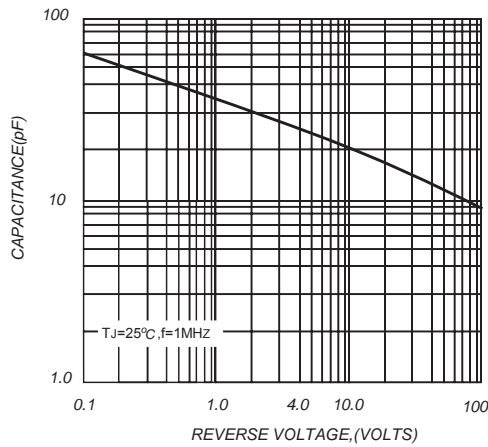


FIG.4-TYPICAL FORWARD CHARACTERISTICS

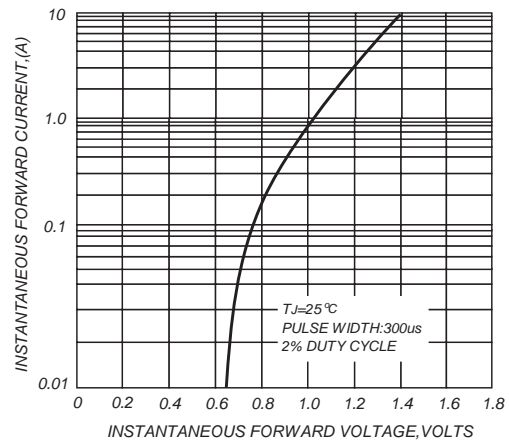


FIG.5-TYPICAL REVERSE CHARACTERISTICS

