

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

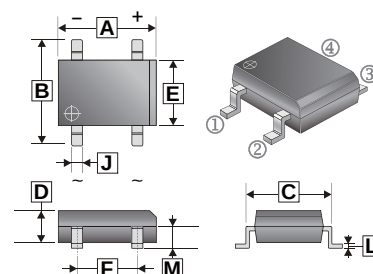
MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

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%.

DB-1S



REF.	Millimeter		REF.	Millimeter	
	Min.	Max.		Min.	Max.
A	8.20	8.80	F	5.00	5.20
B	10.0	10.3	J	0.95	1.20
C	7.80	8.50	L	0.20	0.35
D	3.15	3.40	M	1.40	1.60
E	6.20	6.50			

PARAMETERS	SYMBOL	DB 1501S	DB 1502S	DB 1503S	DB 1504S	DB 1505S	DB 1506S	DB 1507S	UNIT
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 @ $T_A=40^\circ\text{C}$	$I_{(AV)}$	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 @ $T_J=25^\circ\text{C}$ at Rated DC Blocking Voltage @ $T_J=125^\circ\text{C}$	I_R	10 500							μA
I^2t Rating for Fusing ($t < 8.3\text{ms}$)	I^2t	10.4							A^2s
Typical Junction Capacitance Per Element (Note1)	C_J	25							pF
Typical Thermal Resistance (Note2)	$R_{\theta JA}$	40							$^\circ\text{C/W}$
Operating and Storage temperature range	T_J, T_{STG}	-55 ~ 150							$^\circ\text{C}$

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

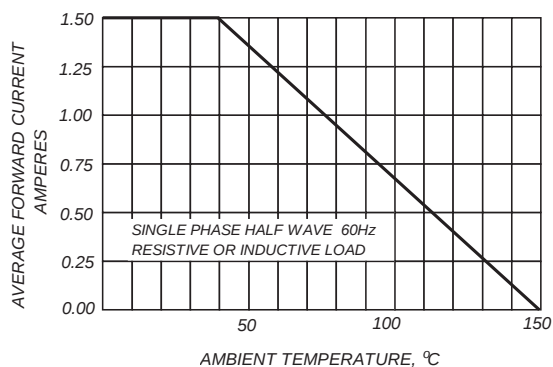


FIG.2-MAXIMUM NON-REPETITIVE SURGE CURRENT

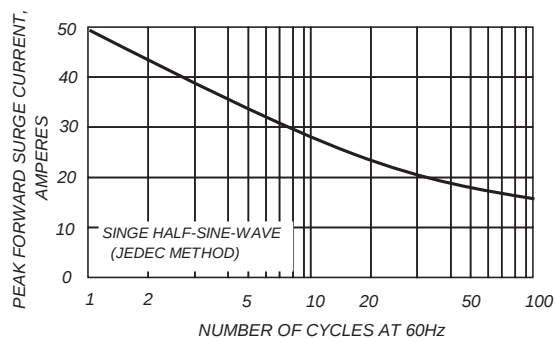


FIG.3-TYPICAL JUNCTION CAPACITANCE

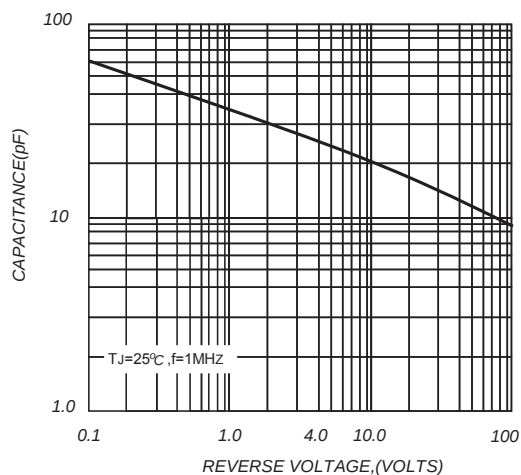


FIG.4-TYPICAL FORWARD CHARACTERISTICS

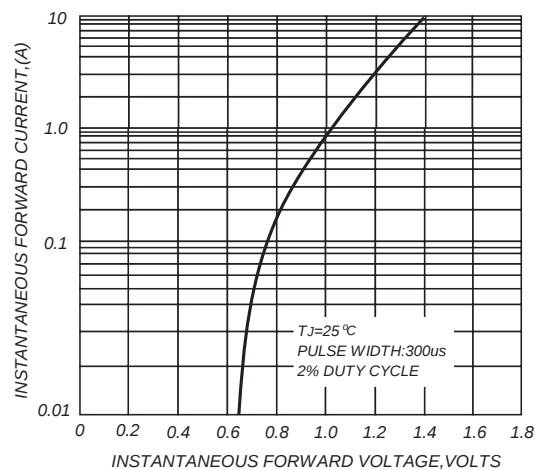


FIG.5-TYPICAL REVERSE CHARACTERISTICS

