



DC COMPONENTS CO., LTD.

RECTIFIER SPECIALISTS

**DB151S
THRU
DB157S**

TECHNICAL SPECIFICATIONS OF SINGLE-PHASE SURFACE MOUNT BRIDGE RECTIFIER
VOLTAGE RANGE - 50 to 1000 Volts CURRENT - 1.5 Ampere

FEATURES

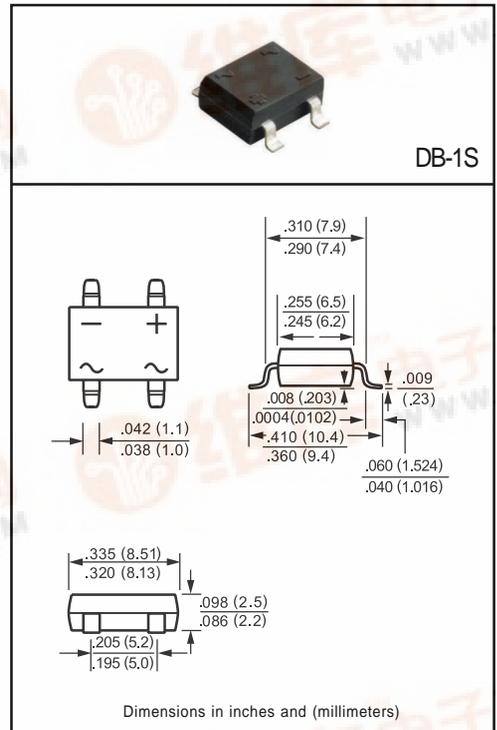
- * Surge overload rating - 50 Amperes peak
- * Ideal for printed circuit board
- * Reliable low cost construction
- * Glass passivated junction

MECHANICAL DATA

- * Case: Molded plastic
- * Epoxy: UL 94V-0 rate flame retardant
- * Terminals: MIL-STD-202E, Method 208 guaranteed
- * Polarity: Symbols molded or marked on body
- * Mounting position: Any
- * Weight: 0.38 gram

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

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



	SYMBOL	DB151S	DB152S	DB153S	DB154S	DB155S	DB156S	DB157S	UNITS
Maximum Recurrent Peak Reverse Voltage	V _{RRM}	50	100	200	400	600	800	1000	Volts
Maximum RMS Bridge Input Voltage	V _{VRMS}	35	70	140	280	420	560	700	Volts
Maximum DC Blocking Voltage	V _{bc}	50	100	200	400	600	800	1000	Volts
Maximum Average Forward Output Current at T _A = 40°C	I _o	1.0							Amps
Peak Forward Surge Current 8.3 ms single half sine-wave superimposed on rated load (JEDEC Method)	I _{FSM}	50							Amps
Maximum Forward Voltage Drop per Bridge Element at 1.0A DC	V _F	1.1							Volts
Maximum DC Reverse Current at rated	I _R							10	uAmps
DC Blocking Voltage per element								500	
I ² t Rating for Fusing (t<8.3ms)	I ² t	10							A ² Sec
Typical Junction Capacitance (Note1)	C _J	25							pF
Typical Thermal Resistance (Note 2)	R _{θJA}	40							°C/W
Operating and Storage Temperature Range	T _J , T _{STG}	-55 to + 150							°C

NOTE 1. Measured at 1 MHz and applied reverse voltage of 4.0 volts

NOTE 2. Thermal Resistance from Junction to Ambient and from junction to lead mounted on P.C.B. with 0.5 x 0.5" (13x13mm) copper pads.

RATING AND CHARACTERISTIC CURVES (DB151S THRU DB157S)

FIG. 1 - MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

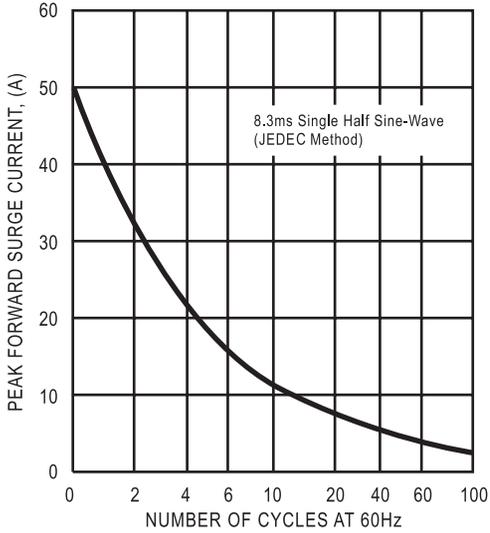


FIG. 2 - TYPICAL FORWARD CURRENT DERATING CURVE

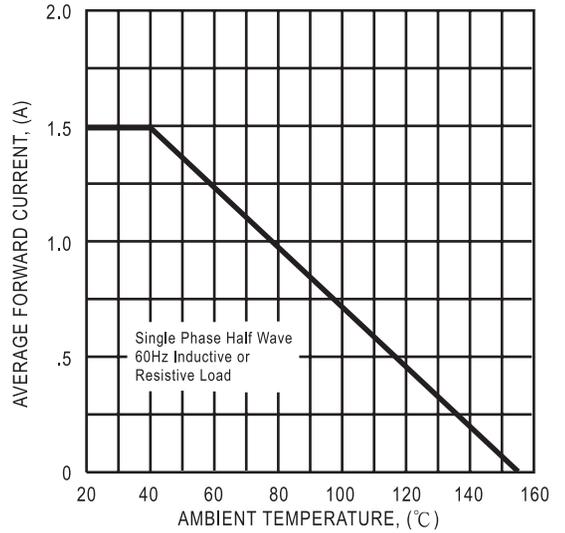


FIG. 3 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

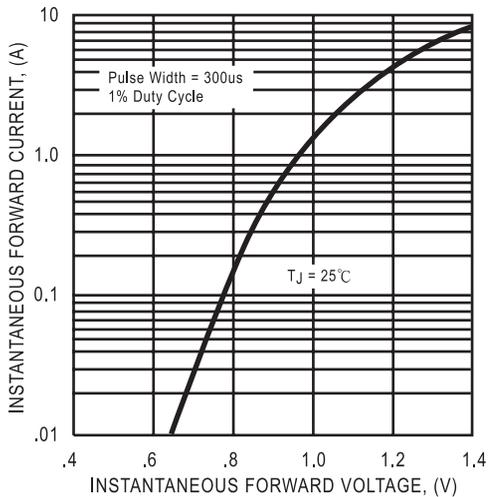


FIG. 4 - TYPICAL REVERSE CHARACTERISTICS

