

SB520S - SB5B0S

PRV : 20 - 100 Volts

I_o : 5.0 Amperes

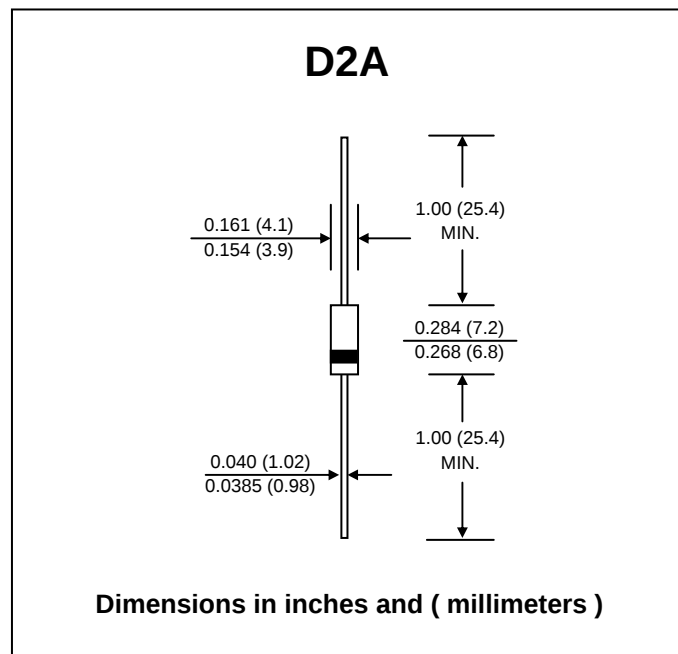
FEATURES :

- * High current capability
- * High surge current capability
- * High reliability
- * High efficiency
- * Low power loss
- * Low cost
- * Low forward voltage drop
- * **Pb / RoHS Free**

MECHANICAL DATA :

- * Case : D2A Molded plastic
- * Epoxy : UL94V-O rate flame retardant
- * Lead : Axial lead solderable per MIL-STD-202, Method 208 guaranteed
- * Polarity : Color band denotes cathode end
- * Mounting position : Any
- * Weight : 0.645 gram

SCHOTTKY BARRIER RECTIFIER DIODES



MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Rating 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%.

RATING	SYMBOL	SB 520S	SB 530S	SB 540S	SB 550S	SB 560S	SB 570S	SB 580S	SB 590S	SB 5B0S	UNIT
Maximum Recurrent Peak Reverse Voltage	V _{RRM}	20	30	40	50	60	70	80	90	100	V
Maximum RMS Voltage	V _{RMS}	14	21	28	35	42	49	56	63	70	V
Maximum DC Blocking Voltage	V _{DC}	20	30	40	50	60	70	80	90	100	V
Maximum Average Forward Current 0.375", 9.5mm Lead Length See Fig.1	I _{F(AV)}	5.0									A
Maximum Peak Forward Surge Current, 8.3ms single half sine wave superimposed on rated load (JEDEC Method)	I _{FSM}	150									A
Maximum Forward Voltage at I _F = 5 A (Note 1)	V _F	0.55			0.67			0.79			V
Maximum Reverse Current at Ta = 25 °C	I _R	0.5									mA
Rated DC Blocking Voltage (Note 1) Ta = 100 °C	I _{R(H)}	50			25						mA
Junction Temperature Range	T _J	- 65 to + 125			- 65 to + 150						°C
Storage Temperature Range	T _{STG}	- 65 to + 150									°C

Note :

(1) Pulse Test : Pulse Width = 300 μs, Duty Cycle = 2%.

RATING AND CHARACTERISTIC CURVES (SB520S - SB5B0S)

FIG.1 - FORWARD CURRENT DERATING CURVE

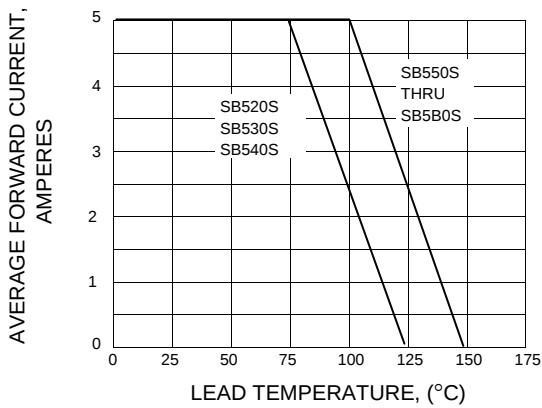


FIG.2 - MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

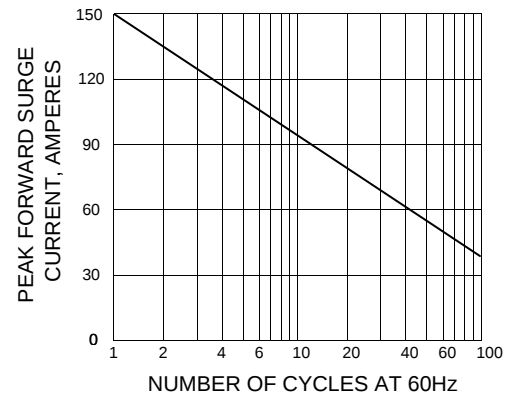


FIG.3 - TYPICAL FORWARD CHARACTERISTICS

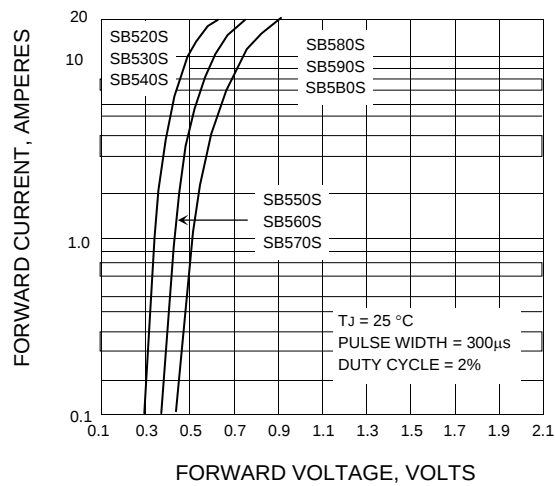


FIG.4 - TYPICAL REVERSE CHARACTERISTICS

