

SBT20 - SBTB0

SCHOTTKY BARRIER RECTIFIER DIODES

PRV : 20 - 100 Volts

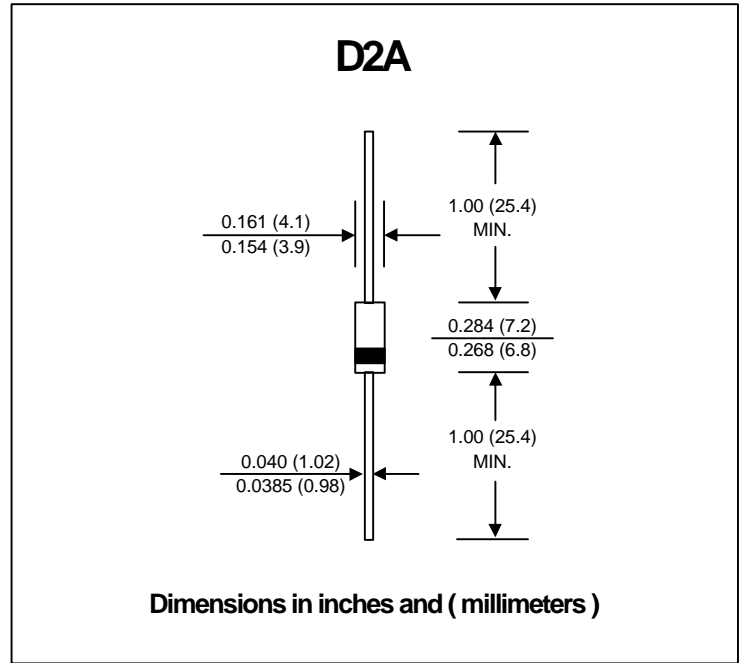
I_o : 2.5 Amperes

FEATURES :

- * High current capability
- * High surge current capability
- * High reliability
- * High efficiency
- * Low power loss
- * Low cost
- * Low forward voltage drop

MECHANICAL DATA :

- * Case : D2 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



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	SBT 20	SBT 30	SBT 40	SBT 50	SBT 60	SBT 70	SBT 80	SBT 90	SB TB0	UNIT
Maximum Recurrent Peak Reverse Voltage	V _{RRM}	20	30	40	50	60	70	80	90	100	Volts
Maximum RMS Voltage	V _{RMS}	14	21	28	35	42	49	56	63	70	Volts
Maximum DC Blocking Voltage	V _{DC}	20	30	40	50	60	70	80	90	100	Volts
Maximum Average Forward Current 0.375", 9.5mm Lead Length See Fig.1	I _{F(AV)}	2.5									Amps.
Peak Forward Surge Current, 8.3ms single half sine wave superimposed on rated load (JEDEC Method)	I _{FSM}	75									Amps.
Maximum Forward Voltage at I _F = 2.5 Amps. (Note 1)	V _F	0.5			0.74			0.79			Volt.
Maximum Reverse Current at Rated DC Blocking Voltage (Note 1)	I _R	0.5									mA
Junction Temperature Range	T _J	- 65 to + 125				- 65 to + 150					°C
Storage Temperature Range	T _{STG}	- 65 to + 150									°C

Notes :

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

RATING AND CHARACTERISTIC CURVES (SBT20 - SBTB0)

FIG.1 - FORWARD CURRENT DERATING CURVE

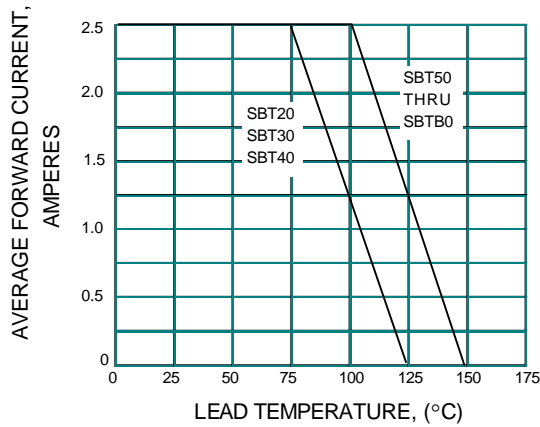


FIG.2 - MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

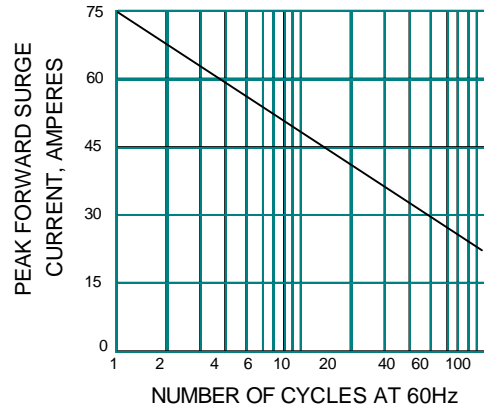


FIG.3 - TYPICAL FORWARD CHARACTERISTICS

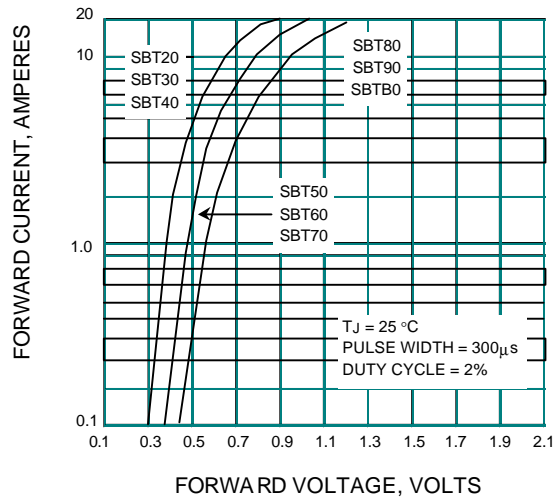


FIG.4 - TYPICAL REVERSE CHARACTERISTICS

