



**ELECTRONICS INDUSTRY (USA) CO., LTD.**

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Certificate Number: Q10561



Certificate Number: E17276

## SBT20S - SBTB0S

**PRV : 20 - 100 Volts**  
**I<sub>o</sub> : 2.5 Amperes**

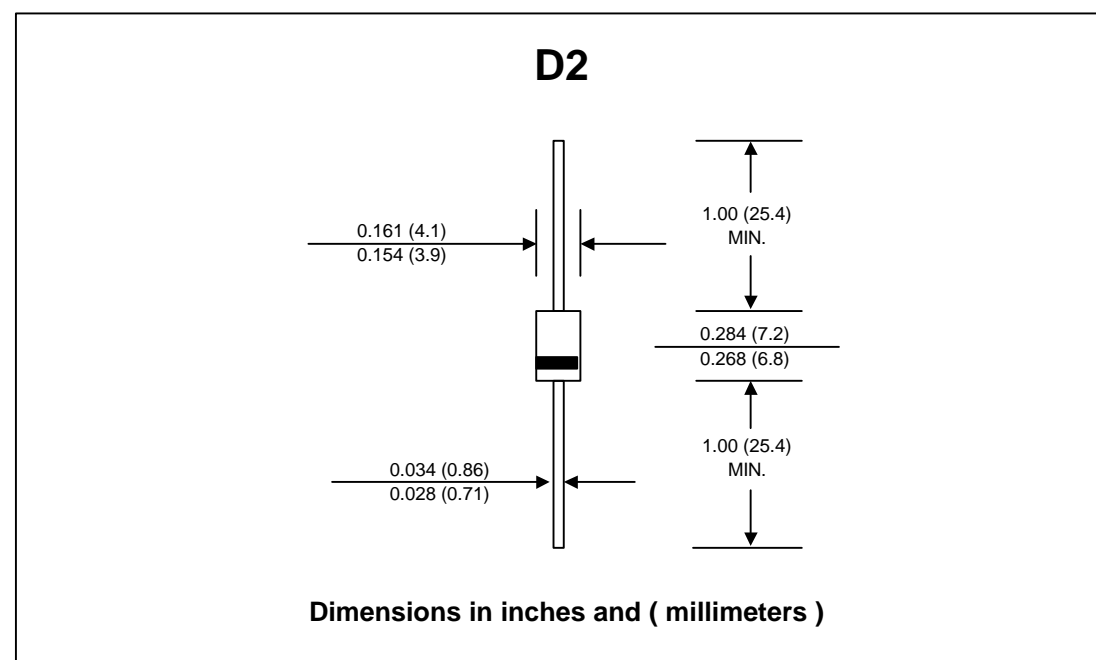
### FEATURES :

- \* 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 : 0.465 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	SBT 20S	SBT 30S	SBT 40S	SBT 50S	SBT 60S	SBT 70S	SBT 80S	SBT 90S	SB TB0S	UNIT	
Maximum Recurrent Peak Reverse Voltage	V <sub>RRM</sub>	20	30	40	50	60	70	80	90	100	Volts	
Maximum RMS Voltage	V <sub>RMS</sub>	14	21	28	35	42	49	56	63	70	Volts	
Maximum DC Blocking Voltage	V <sub>DC</sub>	20	30	40	50	60	70	80	90	100	Volts	
Maximum Average Forward Current 0.375", 9.5mm Lead Length See Fig.1	I <sub>F(AV)</sub>	2.5									Amps.	
Peak Forward Surge Current, 8.3ms single half sine wave superimposed on rated load (JEDEC Method)	I <sub>FSM</sub>	75									Amps.	
Maximum Forward Voltage at I <sub>F</sub> = 2.5 Amps. (Note 1)	V <sub>F</sub>	0.5			0.74			0.79			Volt.	
Maximum Reverse Current at Rated DC Blocking Voltage (Note 1)	I <sub>R</sub>	0.5									mA	
Junction Temperature Range	T <sub>J</sub>	- 65 to + 125				- 65 to + 150						°C
Storage Temperature Range	T <sub>STG</sub>	- 65 to + 150									°C	

### Notes :

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

UPDATE : MAY 10, 1999



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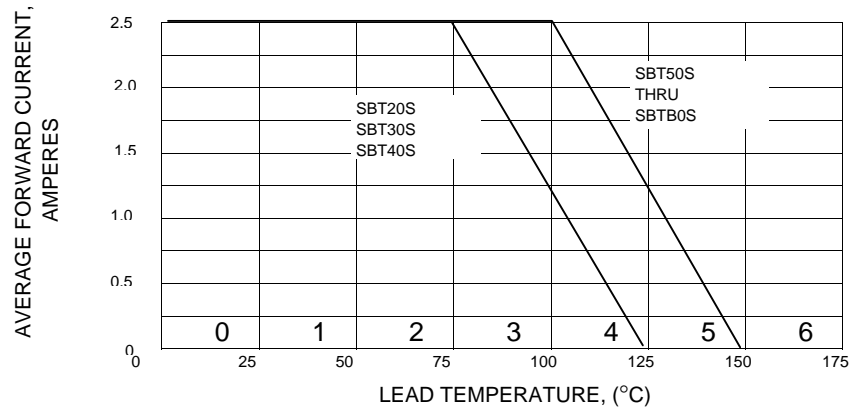
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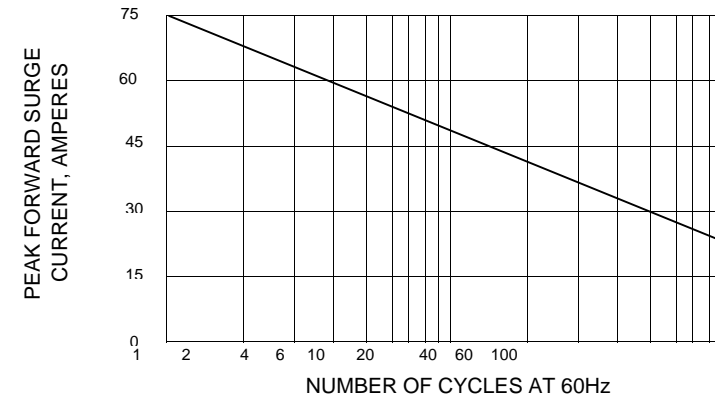
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**RATING AND CHARACTERISTIC CURVES ( SBT20S - SBTB0S )**

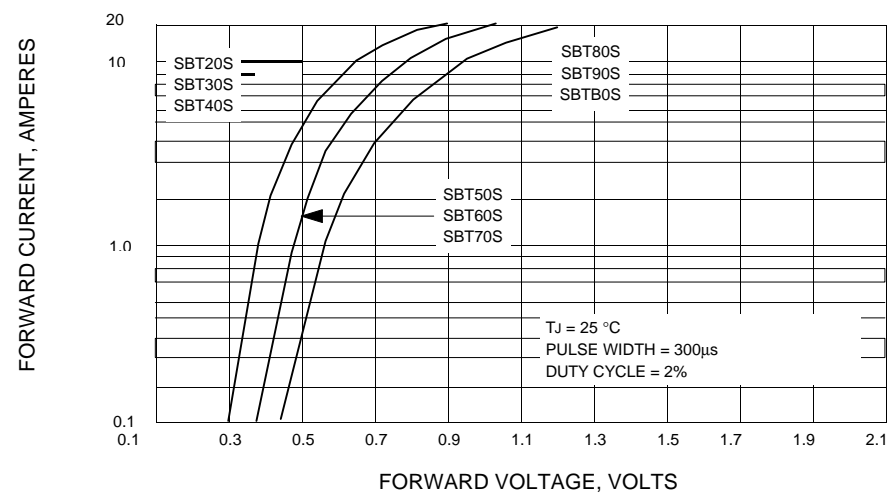
**FIG.1 - FORWARD CURRENT DERATING CURVE**



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



**FIG.3 - TYPICAL FORWARD CHARACTERISTICS**



**FIG.4 - TYPICAL REVERSE CHARACTERISTICS**

