



Certificate Number: Q10561

Certificate Number: E17276

SBT20 - SBTB0

SCHOTTKY BARRIER RECTIFIER DIODES

PRV : 20 - 100 Volts

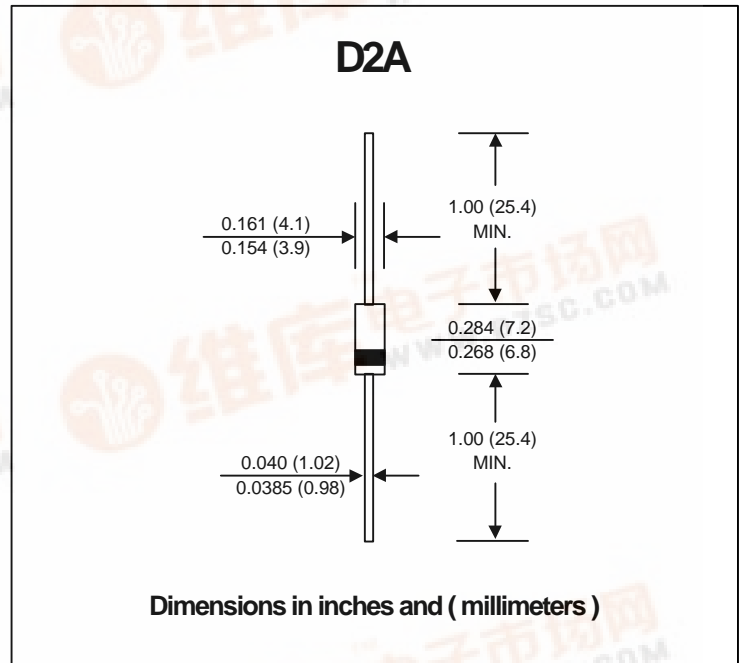
I_o : 2.5 Amperes

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 | SBT | SBT | SBT | SBT | SBT | SBT | SBT | SB | UNIT |
|---|--------------------|---------------|-----|-----|---------------|-----|-----|------|-----|-----|-------|
| | | 20 | 30 | 40 | 50 | 60 | 70 | 80 | 90 | TB0 | |
| 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 |



RATING AND CHARACTERISTIC CURVES (SBT20 - SBTB0)

FIG.1 - FORWARD CURRENT DERATING CURVE

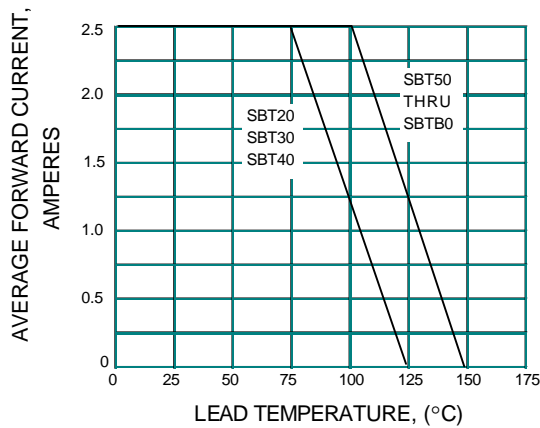


FIG.2 - MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

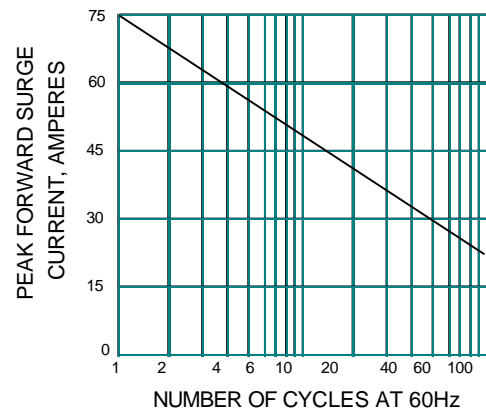


FIG.3 - TYPICAL FORWARD CHARACTERISTICS

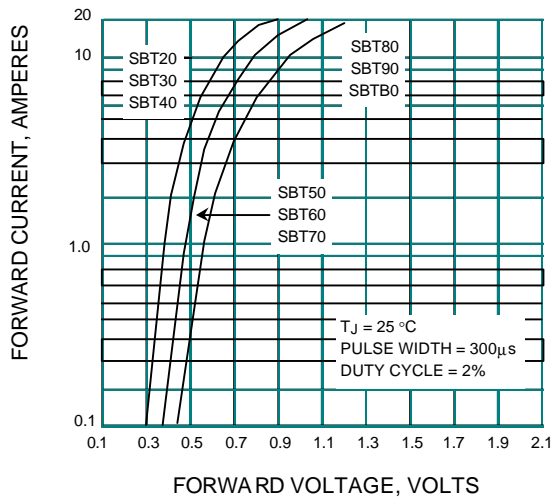


FIG.4 - TYPICAL REVERSE CHARACTERISTICS

