



PRELIMINARY

SOLID STATE DEVICES, INC

14849 Firestone Boulevard · La Mirada, CA 90638  
Phone: (714) 670-SSDI (7734) · Fax: (714) 522-7424

**SFTX3501-3X-16Q**

**TRIPLE UNCOMMITTED  
300mA  
150 Volt  
NPN TRANSISTOR**

**Designer's Data Sheet**

**FEATURES:**

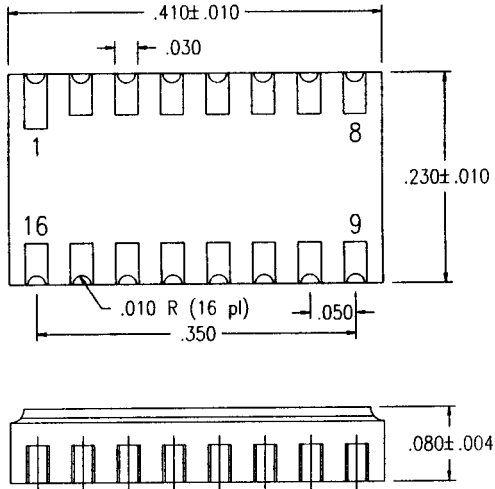
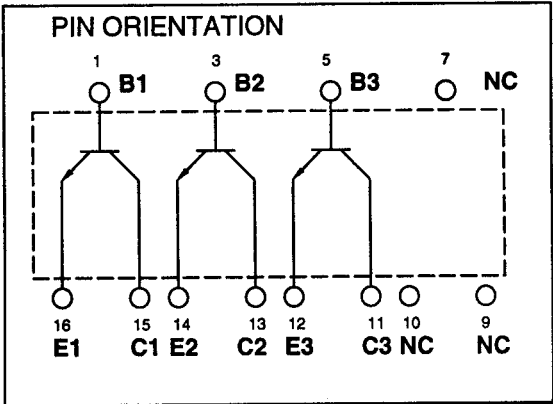
- Eutectic Die Attach, Hermetic Package
- Electrical performance similar to 3 X 2N3501 in one package

**16 PIN QUAD CLCC**

**MAXIMUM RATINGS**

| CHARACTERISTIC   | SYMBOL                            | VALUE       | UNIT |
|--|-----------------------------------|-------------|------|
| Collector-Emitter Voltage                                      | V <sub>CEO</sub>                  | 150         | v    |
| Collector-Base Voltage   | V <sub>CBO</sub>                  | 150         | v    |
| Emitter-Base Voltage   | V <sub>EB0</sub>                  | 6.0         | v    |
| Collector Current (per transistor)                             | I <sub>c</sub>                    | 300         | mA   |
| Total Device Dissipation @ TC= 25°C<br>(All three transistors) | P <sub>D</sub>                    | 7.0         | W    |
| Operating and Storage Temperature                              | T <sub>j</sub> , T <sub>stj</sub> | -55 to +200 | °C   |
| Thermal Resistance, Junction to Case (all 3 transistors)       | R <sub>θJC</sub>                  | 25          | °C/W |

**PACKAGE OUTLINE: 16 PIN QUAD CLCC**



**NOTE:** All specifications are subject to change without notification. SCD's for these devices should be reviewed by SSDI prior to release.

**DATA SHEET #: XN0023 D**

**MED**

**SFTX3501-3X-16Q**



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**ELECTRICAL CHARACTERISTICS (Per Transistor) @ TA=25°C (Unless Otherwise Specified)**

| RATING   | SYMBOL  | MIN             | MAX      | UNIT                   |             |
|--|---|-----------------|----------|------------------------|-------------|
| Collector-Emitter Breakdown Voltage<br>(IC= 10.0mAdc, IB=0 A)  | <b>BVCEO</b>  | 150             | ---      | <b>V</b>               |             |
| Collector- Base Breakdown Voltage<br>(IC= 10.0μAdc, IE=0 A)  | <b>BVCBO</b>  | 150             | ---      | <b>V</b>               |             |
| Emitter-Base Breakdown Voltage<br>(IE = 10μAdc, IC=0 A)  | <b>BVEBO</b>  | 6               | ---      | <b>V</b>               |             |
| Collector-Base Cutoff Current<br>(VCB= 75 Vdc, IE=0 A)<br>(VCB=75 Vdc, IE=0A, TA=150°C)                            | <b>ICBO</b>   | ---             | 50<br>50 | <b>nA</b><br><b>uA</b> |             |
| Emitter Cutoff Current<br>(VEB = 4 Vdc)  | <b>IEBO</b>   | ---             | 25       | <b>nA</b>              |             |
| DC Current Gain<br>(IC= 0.1 mAdc, VCE= 10 Vdc)<br>(IC= 150 mAdc, VCE= 10 Vdc)<br>(IC=150mAdc, VCE=10Vdc, TA=150°C) | <b>HFE</b>  | 35<br>100<br>45 | ---      | ---                    |             |
| Collector -Emitter Saturation Voltage<br>(IC= 150 mAdc, IB = 15 mAdc)  | <b>VCE(SAT)</b>   | ---             | 0.4      | <b>V</b>               |             |
| Base-Emitter Saturation Voltage<br>(IC= 150 mAdc, IB = 15 mAdc)  | <b>VBE(SAT)</b>   | ---             | 1.2      | <b>V</b>               |             |
| Output Capacitance<br>(VCB= 10 Vdc, IE= 0 Adc, f=1MHz)   | <b>Cob</b>  | ---             | 10       | <b>pF</b>              |             |
| Input Capacitance<br>(VBE= 0.5 Vdc, IC= 0 Adc, f=1MHz)   | <b>Cib</b>  | ---             | 80       | <b>pF</b>              |             |
| On Time  | IC= 150 mAdc<br>Vcc=100Vdc<br>IB1=15 mAdc<br>VEB=-2 Vdc | <b>ton</b>      | ---      | 115                    | <b>nsec</b> |
| Off Time   | IC=150mA<br>Vcc=100Vdc<br>IB1= -IB2=15 mAdc             | <b>toff</b>     | ---      | 1150                   |             |

**For thermal derating curves and other characteristic curves please contact SSDI Marketing Department.**