

**SOT-23 BIPOLAR TRANSISTORS
TRANSISTOR(NPN)**

FEATURES

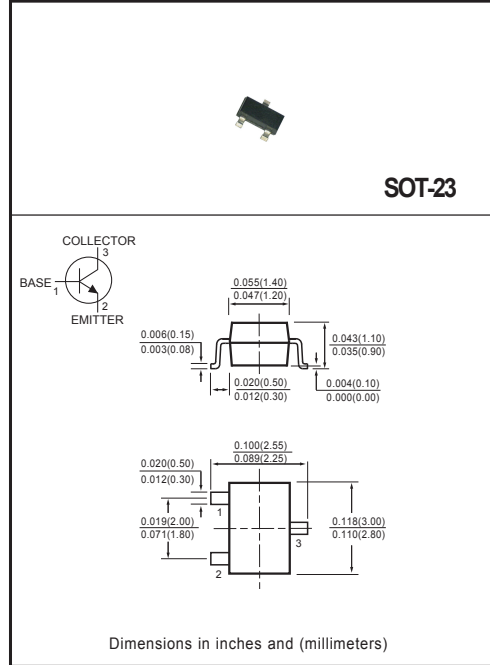
- * Power dissipation
P_{CM} : 0.2 □ W (T_{amb}=25°C)
- * Collector current
I_{CM} : 0.8 □ A
- * Collector-base voltage
V_{(BR)CBO} : 75 □ V
- * Operating and storage junction temperature range
T_J,T_{stg}: -55°C to +150°C

MECHANICAL DATA

- * Case: Molded plastic
- * Epoxy: UL 94V-O rate flame retardant
- * Lead: MIL-STD-202E method 208C guaranteed
- * Mounting position: Any
- * Weight: 0.008 gram

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25°C ambient temperature unless otherwise specified.
Single phase , half wave, 60Hz, resistive or inductive load.
For capacitive load, derate current by 20%.



ELECTRICAL CHARACTERISTICS (@ TA = 25°C unless otherwise noted)

| CHARACTERISTICS | SYMBOL | MIN | TYP | MAX | UNITS |
|--|----------------------|-----|-----|------|-------|
| Collector-base breakdown voltage (I _C = 10μA, I _E =0) | V _{(BR)CBO} | 75 | - | - | V |
| Collector-emitter breakdown voltage (I _C = 10mA, I _B =0) | V _{(BR)CEO} | 45 | - | - | V |
| Emitter-base breakdown voltage (I _E = 10μA, I _C =0) | V _{(BR)EBO} | 5 | - | - | V |
| Collector cut-off current (V _{CB} = 45V, I _E =0) | I _{CBO} | - | - | 0.02 | μA |
| Collector cut-off current (V _{EB} = 4V, I _C =0) | I _{EBO} | - | - | 0.02 | μA |
| DC current gain (V _{CE} = 10V, I _C = 0.1mA) | h _{FE} | 80 | - | - | - |
| DC current gain (V _{CE} = 1V, I _C = 10mA) | | 180 | - | - | - |
| DC current gain (V _{CE} = 1V, I _C = 100mA) | | 250 | - | 630 | - |
| DC current gain (V _{CE} = 2V, I _C = 500mA) | | 100 | - | - | - |
| Collector-emitter saturation voltage (I _C = 100mA, I _B = 10mA) | V _{CE(sat)} | - | - | 0.3 | V |
| Collector-emitter saturation voltage (I _C = 500mA, I _B = 50mA) | | - | - | 0.7 | V |
| Base-emitter saturation voltage (I _C = 100mA, I _B = 10mA) | V _{BE(sat)} | - | - | 1.25 | V |
| Base-emitter saturation voltage (I _C = 500mA, I _B = 50mA) | | - | - | 2 | V |
| Transition frequency (V _{CE} = 10V, I _C = 20mA, f=100MHz) | f _r | 100 | - | - | MHz |
| Collector base capacitance (V _{CB} = 10V, I _E = 0, f=1MHz) | C _{CB} | - | - | 12 | pF |
| Emitter base capacitance (V _{EB} = 0.5V, I _E = 0, f=1MHz) | C _{EB} | - | - | 80 | pF |
| Noise figure (V _{CE} = 5V, I _E = 0.2mA, f=1kHz, Δf=200Hz, R _G =2KΩ) | NF | - | - | 10 | dB |

| | |
|---------|----|
| Marking | EH |
|---------|----|

Note 1: "Fully ROHS compliant", "100% Sn plating (Pb-free)".

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