

Silicon NPN Power Transistor

DESCRIPTION

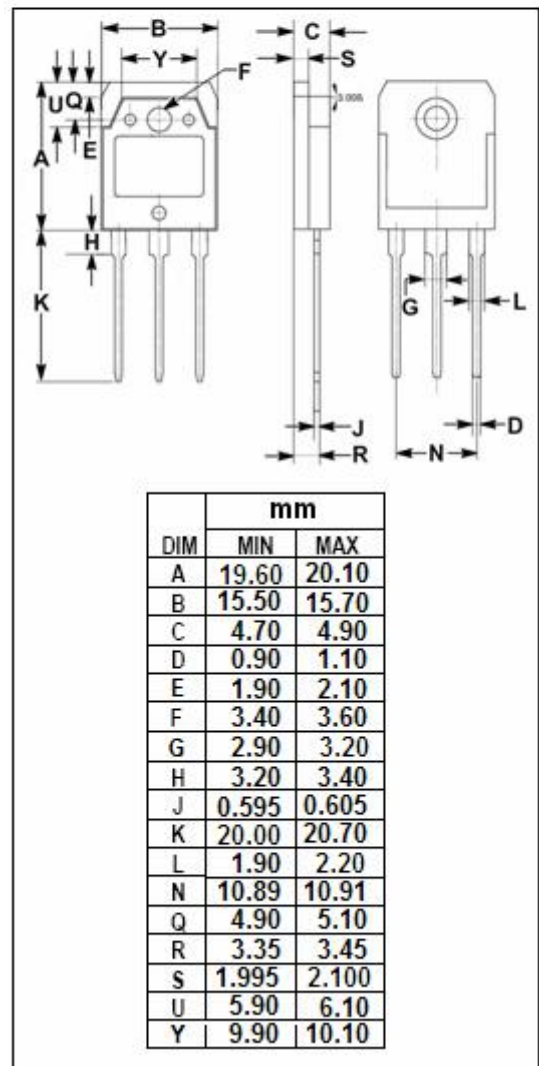
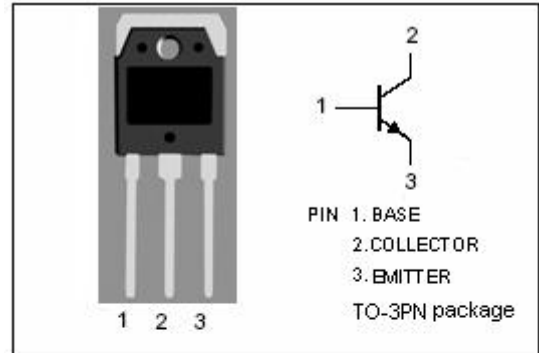
- High Collector-Emitter Breakdown Voltage-
: $V_{(BR)CEO}=180V(\text{Min})$
- Good Linearity of h_{FE}
- Complement to Type 2SA1492

APPLICATIONS

- Designed for audio and general purpose applications

ABSOLUTE MAXIMUM RATINGS($T_a=25^\circ\text{C}$)

| SYMBOL | PARAMETER | VALUE | UNIT |
|-----------|---|---------|------------------|
| V_{CBO} | Collector-Base Voltage | 200 | V |
| V_{CEO} | Collector-Emitter Voltage | 180 | V |
| V_{EBO} | Emitter-Base Voltage | 6 | V |
| I_C | Collector Current-Continuous | 15 | A |
| I_B | Base Current-Continuous | 4 | A |
| P_C | Collector Power Dissipation @ $T_C=25^\circ\text{C}$ | 130 | W |
| T_J | Junction Temperature | 150 | $^\circ\text{C}$ |
| T_{stg} | Storage Temperature Range | -55~150 | $^\circ\text{C}$ |



Ordering Information

| Product | Package | Packaging |
|-------------|---------|-----------|
| 2SC3856T4TL | TO-3PN | Tube |



ELECTRICAL CHARACTERISTICS

$T_c=25^{\circ}\text{C}$ unless otherwise specified

| SYMBOL | PARAMETER | CONDITIONS | MIN | TYP. | MAX | UNIT |
|---------------|--------------------------------------|--|-----|------|-----|---------------|
| $V_{(BR)CEO}$ | Collector-Emitter Breakdown Voltage | $I_C= 50\text{mA} ; I_B= 0$ | 180 | | | V |
| $V_{CE(sat)}$ | Collector-Emitter Saturation Voltage | $I_C= 5.0\text{A}; I_B= 0.5\text{A}$ | | | 2.0 | V |
| I_{CBO} | Collector Cutoff Current | $V_{CB}= 200\text{V} ; I_E= 0$ | | | 100 | μA |
| I_{EBO} | Emitter Cutoff Current | $V_{EB}= 6\text{V}; I_C= 0$ | | | 100 | μA |
| h_{FE} | DC Current Gain | $I_C= 3\text{A} ; V_{CE}= 4\text{V}$ | 50 | | 180 | |
| C_{OB} | Output Capacitance | $I_E= 0 ; V_{CB}= 10\text{V}; f_{test}= 1.0\text{MHz}$ | | 300 | | pF |
| f_T | Current-Gain—Bandwidth Product | $I_E=-0.5\text{A} ; V_{CE}= 12\text{V}$ | | 20 | | MHz |

Switching times

| | | | | | | |
|-----------|--------------|--|--|-----|--|---------------|
| t_{on} | Turn-on Time | $I_C= 10\text{A}, R_L= 4\ \Omega,$ $I_{B1}= -I_{B2}= 1\text{A}, V_{CC}= 40\text{V}$ | | 0.5 | | μs |
| t_{stg} | Storage Time | | | 1.8 | | μs |
| t_f | Fall Time | | | 0.6 | | μs |

◆ h_{FE} Classifications

| O | P | Y |
|--------|--------|--------|
| 50-100 | 70-140 | 90-180 |

X-ON Electronics

Largest Supplier of Electrical and Electronic Components

Click to view similar products for [Bipolar Transistors - BJT category](#):

Click to view products by [SPS manufacturer](#):

Other Similar products are found below :

[619691C](#) [MCH4017-TL-H](#) [MJ15024/WS](#) [MJ15025/WS](#) [BC546/116](#) [BC556/FSC](#) [BC557/116](#) [BSW67A](#) [HN7G01FU-A\(T5L,F,T](#)
[NJVMJD148T4G](#) [NSVMMBT6520LT1G](#) [NTE187A](#) [NTE195A](#) [NTE2302](#) [NTE2330](#) [NTE2353](#) [NTE316](#) [IMX9T110](#) [NTE63](#) [NTE65](#)
[C4460](#) [SBC846BLT3G](#) [2SA1419T-TD-H](#) [2SA1721-O\(TE85L,F\)](#) [2SA1727TLP](#) [2SA2126-E](#) [2SB1202T-TL-E](#) [2SB1204S-TL-E](#) [2SC5488A-](#)
[TL-H](#) [2SD2150T100R](#) [SP000011176](#) [FMC5AT148](#) [2N2369ADCSM](#) [2SB1202S-TL-E](#) [2SC2412KT146S](#) [2SC4618TLN](#) [2SC5490A-TL-H](#)
[2SD1816S-TL-E](#) [2SD1816T-TL-E](#) [CMXT2207 TR](#) [CPH6501-TL-E](#) [MCH4021-TL-E](#) [BC557B](#) [TTC012\(Q\)](#) [BULD128DT4](#) [JANTX2N3810](#)
[Jantx2N5416](#) [US6T6TR](#) [KSF350](#) [068071B](#)