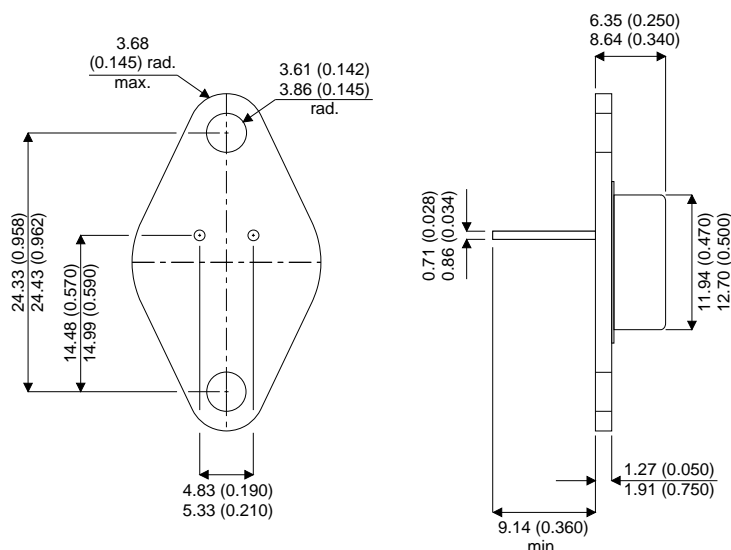


MECHANICAL DATA

Dimensions in mm (inches)



TO-66

PIN 1 — Base
 PIN 2 — Emitter
 Case is Collector.

MEDIUM POWER SILICON NPN TRANSISTOR

FEATURES

- Low Saturation Voltages
- High Voltage Ratings
- Maximum Safe-Operating-Area Curves for DC and Pulse Operation.

APPLICATIONS

- Series and Shunt Regulators
- Audio Amplifiers
- Power Switching Circuits
- Solenoid and Relay Drivers

ABSOLUTE MAXIMUM RATINGS ($T_{case} = 25^{\circ}C$ unless otherwise stated)

V_{CBO}	Collector – Base Voltage	160V
V_{CEO}	Collector – Emitter Voltage	140V
V_{EBO}	Emitter – Base Voltage	7V
I_C	Collector Current	3A
I_B	Base Current	2A
P_{tot}	Total Power Dissipation	25W
	Derate above 25°C	0.142 W / °C
T_j, T_{stg}	Operating and Storage Junction Temperature Range	-65 to 200°C

ELECTRICAL CHARACTERISTICS ($T_{case} = 25^{\circ}C$ unless otherwise stated)

Parameter	Test Conditions	Min.	Typ.	Max.	Unit
OFF CHARACTERISTICS					
$V_{CEO(sus)*}$	Collector – Emitter Sustaining Voltage $I_C = 0.1A$ $I_B = 0$	140			V
I_{CEO}	Collector Cut-off Current $V_{CE} = 140V$ $I_B = 0$			100	mA
I_{CEX}	Collector Cut-off Current $V_{CE} = 140V$ $V_{BE(off)} = 1.5V$ $T_C = 150^{\circ}C$			5 6	mA
I_{EBO}	Emitter Cut-off Current $V_{EB} = 7V$ $I_C = 0$			1	mA
ON CHARACTERISTICS					
h_{FE}	DC Current Gain $V_{CE} = 4V$ $I_C = 0.5A$	25		100	—
		5			
$V_{CE(sat)}$	Collector – Emitter Saturation Voltage $I_C = 2.7A$ $I_B = 0.9A$			6	V
$V_{BE(on)}$	Base – Emitter On Voltage $V_{CE} = 4V$ $I_C = 2.7A$			6.7	V
DYNAMIC CHARACTERISTICS					
h_{fe}	Small Signal Current Gain $V_{CE} = 4V$ $I_C = 0.5A$ $f = 1kHz$	15		75	—
$ h_{fe} $	Small Signal Current Gain $V_{CE} = 4V$ $I_C = 0.5A$ $f = 0.4MHz$	5			—

* This test must NOT be measured on a curve tracer.

THERMAL CHARACTERISTICS

$R_{\theta JC}$	Thermal Resistance Junction – Case			7	$^{\circ}C/W$
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This datasheet has been download from:

www.datasheetcatalog.com

Datasheets for electronics components.