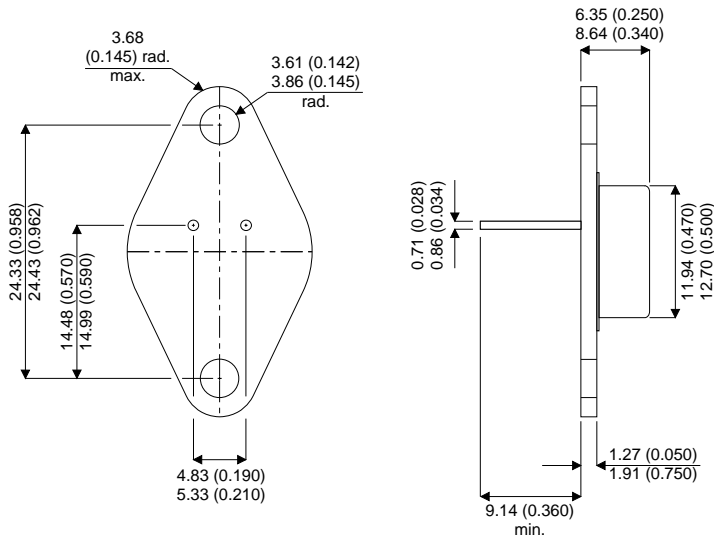


MECHANICAL DATA
Dimensions in mm

**NPN POWER TRANSISTOR
IN A HERMETIC PACKAGE**



FEATURES

- GENERAL PURPOSE SWITCHING AND AMPLIFIER APPLICATIONS.
- MAINTENANCE STATUS DO NOT USE ON NEW DESIGNS

TO66

Pin 1 – Base Pin 2 – Emitter Case - Collector

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

V_{CBO}	Collector – Base Voltage	90V
V_{CEO}	Collector – Emitter Voltage	55V
V_{CER}	Collector – Emitter Voltage ($R_{BE} = 100\Omega$)	60V
V_{EB}	Emitter – Base Voltage	7.0V
I_C	Continuous Collector Current	4A
$I_{C(PK)}$	Peak Collector Current	10A
I_B	Base Current	2A
P_D	Total Dissipation at $T_{case} = 25^{\circ}C$	75W
	Derate above $25^{\circ}C$	0.43W/ $^{\circ}C$
T_J, T_{stg}	Operating and Storage Junction Temperature Range	-65 to +200 $^{\circ}C$

THERMAL CHARACTERISTICS

CHARACTERISTIC		
$R_{\theta JC}$	Thermal Resistance, Junction To Case	2.33°C/W

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	$I_C = 100mA$	$I_B = 0$	55	V
$V_{CER(sus)}$	Collector – Emitter Sustaining Voltage	$I_C = 100mA$	$R_{BE} = 100\Omega$	60	V
I_{CEO}	Collector – Cutoff Current	$V_{CE} = 30V$	$I_B = 0$		500 μA
I_{CEX}	Collector – Cutoff Current	$V_{CE} = 90V$			1
		$V_{BE(off)} = 1.5V$	$T_C = 150^{\circ}C$		6
I_{EBO}	Emitter Cut-Off Current	$V_{BE} = 7.0V$	$I_C = 0$		1 mA
ON CHARACTERISTICS					
h_{FE}	DC Current Gain	$I_C = 0.5A$	$V_{CE} = 4.0V$	25	150
		$I_C = 3.0A$	$V_{CE} = 4.0V$	5	–
$V_{CE(SAT)}$	Collector – Emitter Saturation Voltage	$I_C = 500mA$	$I_B = 50mA$		1
		$I_C = 3.0A$	$I_B = 1.0A$		6
$V_{BE(on)}$	Base – Emitter On Voltage	$I_C = 500mA$	$V_{CE} = 4.0V$		1.7
DYNAMIC CHARACTERISTICS					
f_t	Current – Gain Bandwidth Product	$I_C = 200mA$	$V_{CE} = 10V$	3.0	MHz
h_{fe}	Small – Signal Current Gain	$I_C = 100$	$V_{CE} = 4V$	25	180
f_{hfe}	Common – Emitter Cutoff Frequency	$I_C = 100mA$	$V_{CE} = 4.0V$	30	KHz

* Pulse test : Pulse Width < 300 μs ,Duty Cycle < 2%