

DESCRIPTION

- DC Current Gain-
: $h_{FE} = 20-100 @ I_C = 30A$
- Low Collector Saturation Voltage-
: $V_{CE(sat)} = 2.0V(Max) @ I_C = 20A$

APPLICATIONS

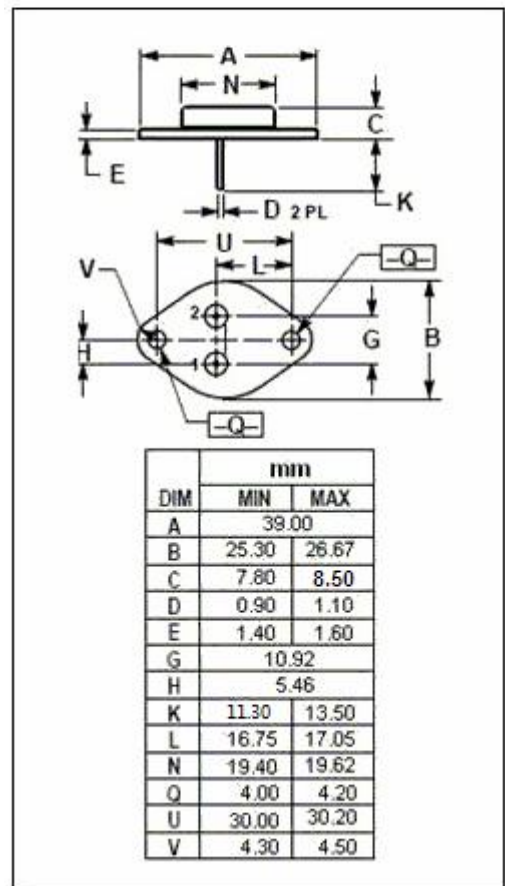
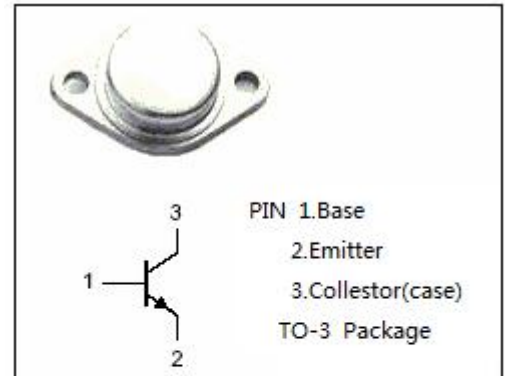
- Designed for use in power switching circuits, audio amplifiers, series and shunt-regulators, driver and output stages, DC-DC converters, inverters, and solenoid /relay driver service.

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

SYMBOL	PARAMETER	VALUE	UNIT
V_{CBO}	Collector-Base Voltage	90	V
V_{CEO}	Collector-Emitter Voltage	80	V
V_{EBO}	Emitter-Base Voltage	5	V
I_C	Collector Current-Continuous	30	A
I_B	Base Current-Continuous	7.5	A
P_C	Collector Power Dissipation @ $T_C = 25^\circ C$	175	W
T_J	Junction Temperature	150	$^\circ C$
T_{stg}	Storage Temperature	-65~150	$^\circ C$

THERMAL CHARACTERISTICS

SYMBOL	PARAMETER	MAX	UNIT
$R_{th\ j-c}$	Thermal Resistance, Junction to Case	0.875	$^\circ C/W$



SPTECH Silicon NPN Power Transistors

2N5935

ELECTRICAL CHARACTERISTICS

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

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
$V_{CEQ(SUS)}$	Collector-Emitter Sustaining Voltage	$I_C = 50\text{mA}$; $I_B = 0$	80			V
$V_{CE(sat)}$	Collector-Emitter Saturation Voltage	$I_C = 20\text{A}$; $I_B = 1.3\text{A}$			2.0	V
$V_{BE(on)}$	Base-Emitter On Voltage	$I_C = 30\text{A}$; $V_{CE} = 4\text{V}$			3.5	V
I_{CEO}	Collector Cutoff Current	$V_{CE} = 80\text{V}$; $I_B = 0$			2.0	mA
I_{CBO}	Collector Cutoff Current	$V_{CB} = 90\text{V}$; $I_E = 0$			1.0	mA
I_{EBO}	Emitter Cutoff Current	$V_{EB} = 5\text{V}$; $I_C = 0$			1.0	mA
h_{FE}	DC Current Gain	$I_C = 30\text{A}$; $V_{CE} = 4\text{V}$	20		100	
f_T	Current-Gain—Bandwidth Product	$I_C = 1\text{A}$; $V_{CE} = 10\text{V}$; $f_{test} = 1\text{MHz}$		30		MHz