

DESCRIPTION

- DC Current Gain-
: $h_{FE} = 20 \sim 100 @ I_C = 15A$
- Low Collector Saturation Voltage-
: $V_{CE(sat)} = 0.75V(Max) @ I_C = 15A$
- Wide Area of Safe Operation

APPLICATIONS

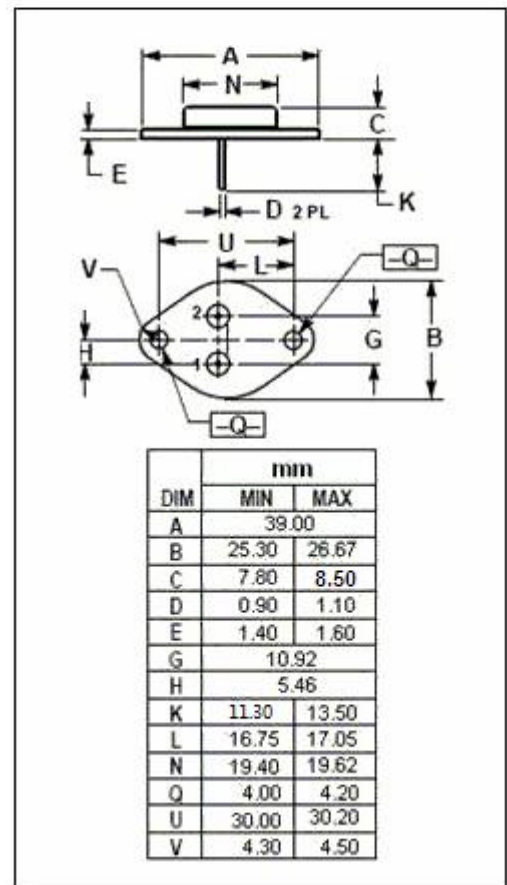
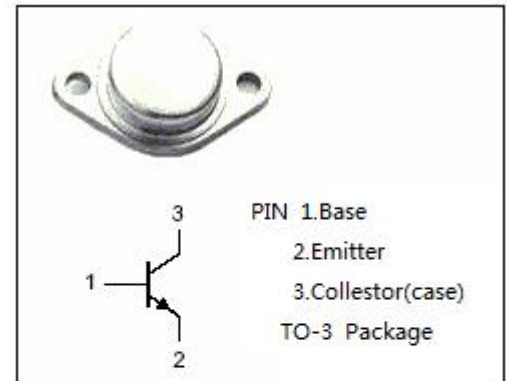
- Designed for general purpose power amplifier and switching applications.

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

SYMBOL	PARAMETER	VALUE	UNIT
V_{CBO}	Collector-Base Voltage	150	V
V_{CEO}	Collector-Emitter Voltage	120	V
V_{EBO}	Emitter-Base Voltage	7	V
I_C	Collector Current-Continuous	30	A
I_B	Base Current-Continuous	10	A
P_C	Collector Power Dissipation @ $T_C = 25^\circ C$	140	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	1.25	$^\circ C/W$



SPTECH Silicon NPN Power Transistors

2N5672

ELECTRICAL CHARACTERISTICS

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

SYMBOL	PARAMETER	CONDITIONS	MIN	MAX	UNIT
$V_{CEO(SUS)}$	Collector-Emitter Sustaining Voltage	$I_C = 50\text{mA}$; $I_B = 0$	120		V
$V_{CE(sat)}$	Collector-Emitter Saturation Voltage	$I_C = 15\text{A}$; $I_B = 1.2\text{A}$		0.75	V
$V_{BE(sat)}$	Base-Emitter Saturation Voltage	$I_C = 15\text{A}$; $I_B = 1.2\text{A}$		1.5	V
$V_{BE(on)}$	Base-Emitter On Voltage	$I_C = 15\text{A}$; $V_{CE} = 5\text{V}$		1.6	V
I_{CEO}	Collector Cutoff Current	$V_{CE} = 80\text{V}$; $I_B = 0$		10	mA
I_{CEV}	Collector Cutoff Current	$V_{CE} = 135\text{V}$; $V_{BE(off)} = 1.5\text{V}$ $V_{CE} = 100\text{V}$; $V_{BE(off)} = 1.5\text{V}$, $T_C = 150^{\circ}\text{C}$		10 10	mA
I_{EBO}	Emitter Cutoff Current	$V_{EB} = 7\text{V}$; $I_C = 0$		10	mA
h_{FE-1}	DC Current Gain	$I_C = 15\text{A}$; $V_{CE} = 2\text{V}$	20	100	
h_{FE-2}	DC Current Gain	$I_C = 20\text{A}$; $V_{CE} = 5\text{V}$	20		
f_T	Current-Gain—Bandwidth Product	$I_C = 2\text{A}$; $V_{CE} = 10\text{V}$; $f_{test} = 1\text{MHz}$	40		MHz

Switching Times

t_{on}	Turn-On Time	$I_C = 15\text{A}$; $I_{B1} = -I_{B2} = 1.2\text{A}$; $V_{CC} = 30\text{V}$; $t_p = 0.1\text{ms}$; Duty Cycle $\leq 2\%$		0.5	μs
t_{stg}	Storage Time			1.5	μs
t_f	Fall Time			0.5	μs