

DESCRIPTION

- DC Current Gain-
: $h_{FE} = 70-200 @ I_C = 2.5A$
- Wide Area of Safe Operation
- Collector-Emitter Sustaining Voltage-
: $V_{CEO(SUS)} = 60V(\text{Min})$
- Complement to Type 2N5613

APPLICATIONS

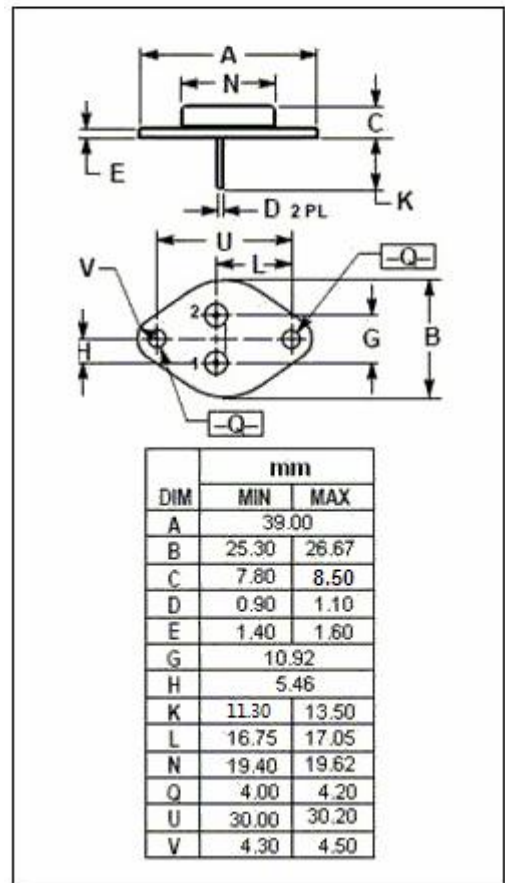
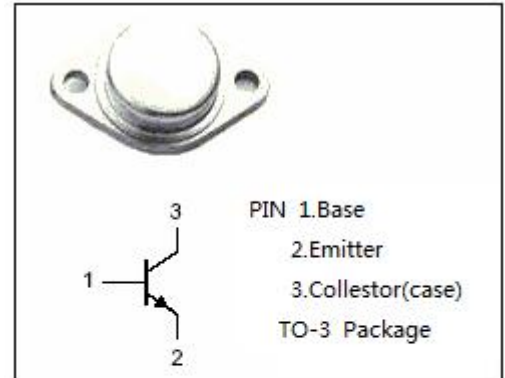
- Designed for use in high frequency power amplifiers, audio power amplifier and drivers.

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

SYMBOL	PARAMETER	VALUE	UNIT
V_{CBO}	Collector-Base Voltage	80	V
V_{CEO}	Collector-Emitter Voltage	60	V
V_{EBO}	Emitter-Base Voltage	6	V
I_C	Collector Current-Continuous	5	A
P_C	Collector Power Dissipation@ $T_C = 25^\circ C$	50	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	3.0	$^\circ C/W$



SPTECH Silicon NPN Power Transistors

2N5614

ELECTRICAL CHARACTERISTICS

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

SYMBOL	PARAMETER	CONDITIONS	MIN	MAX	UNIT
$V_{CE(sus)}$	Collector-Emitter Sustaining Voltage	$I_C= 50\text{mA} ; I_B= 0$	60		V
$V_{CE(sat)}$	Collector-Emitter Saturation Voltage	$I_C= 5\text{A}; I_B= 0.5\text{A}$		1.5	V
$V_{BE(sat)}$	Base-Emitter Saturation Voltage	$I_C= 5\text{A}; I_B= 0.5\text{A}$		2.2	V
I_{CEO}	Collector Cutoff Current	$V_{CE}= 60\text{V}; I_B= 0$		1.0	mA
I_{CBO}	Collector Cutoff Current	$V_{CB}= 80\text{V}; I_E= 0$		0.1	mA
I_{EBO}	Emitter Cutoff Current	$V_{EB}= 6\text{V}; I_C= 0$		0.1	mA
h_{FE}	DC Current Gain	$I_C= 2.5\text{A} ; V_{CE}= 5\text{V}$	70	200	
f_T	Current-Gain—Bandwidth Product	$I_C= 0.5\text{A} ; V_{CE}= 10\text{V}$	70		MHz