

SPTECH Silicon NPN Power Transistor

TIP35C

DESCRIPTION

- DC Current Gain-
: $h_{FE} = 25(\text{Min}) @ I_C = 1.5\text{A}$
- Collector-Emitter Sustaining Voltage-
: $V_{CEO(\text{SUS})} = 100\text{V}(\text{Min})$
- Complement to Type TIP36C
- Current Gain-Bandwidth Product-
: $f_T = 3.0\text{MHz}(\text{Min}) @ I_C = 1.0\text{A}$

APPLICATIONS

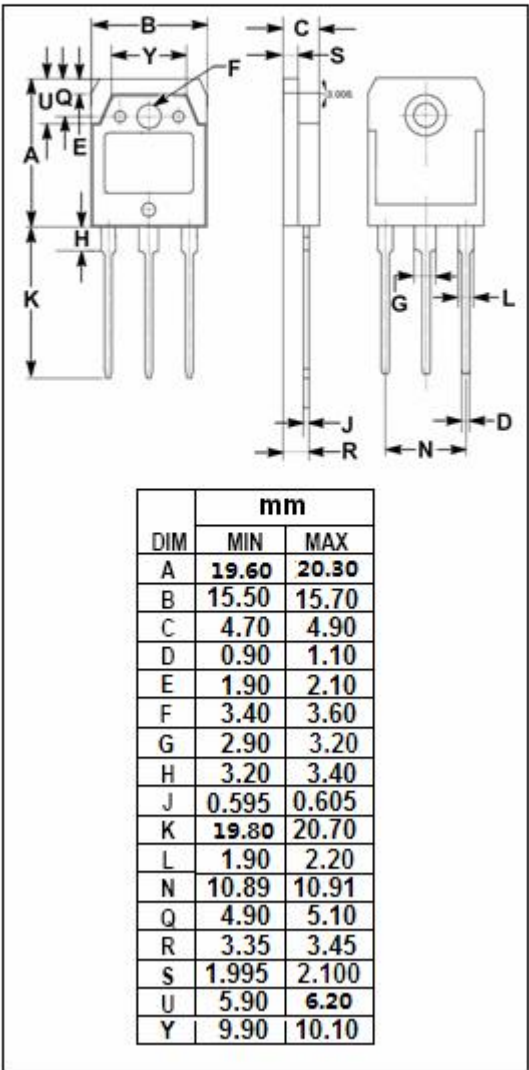
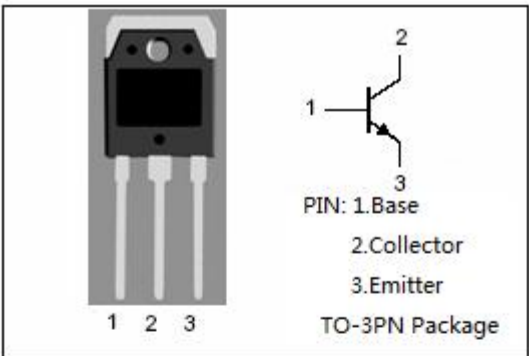
- Designed for use in general purpose power amplifier and switching applications.

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

SYMBOL	PARAMETER	VALUE	UNIT
V_{CBO}	Collector-Base Voltage	100	V
V_{CEO}	Collector-Emitter Voltage	100	V
V_{EBO}	Emitter-Base Voltage	5	V
I_C	Collector Current -Continuous	25	A
I_{CM}	Collector Current-peak	40	A
I_B	Base Current	5	A
P_C	Collector Power Dissipation@ $T_C = 25^\circ\text{C}$	125	W
T_j	Junction Temperature	150	$^\circ\text{C}$
T_{stg}	Storage Temperature	-65~150	$^\circ\text{C}$

THERMAL CHARACTERISTICS

SYMBOL	PARAMETER	MAX	UNIT
$R_{th\ j-c}$	Thermal Resistance, Junction to Case	1.0	$^\circ\text{C/W}$



SPTECH Product Specification

SPTECH Silicon NPN Power Transistor

TIP35C

ELECTRICAL CHARACTERISTICS

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

SYMBOL	PARAMETER	CONDITIONS	MIN	MAX	UNIT
$V_{CEO(SUS)}$	Collector-Emitter Sustaining Voltage	$I_C= 30\text{mA}$; $I_B= 0$	100		V
$V_{CE(sat)-1}$	Collector-Emitter Saturation Voltage	$I_C= 15\text{A}$; $I_B= 1.5\text{A}$		1.8	V
$V_{CE(sat)-2}$	Collector-Emitter Saturation Voltage	$I_C= 25\text{A}$; $I_B= 5\text{A}$		4.0	V
$V_{BE(on)-1}$	Base-Emitter On Voltage	$I_C= 15\text{A}$; $V_{CE}= 4\text{V}$		2.0	V
$V_{BE(on)-2}$	Base-Emitter On Voltage	$I_C= 25\text{A}$; $V_{CE}= 4\text{V}$		4.0	V
I_{CEO}	Collector Cutoff Current	$V_{CE}= 60\text{V}$; $I_B= 0$		1.0	mA
I_{CES}	Collector Cutoff Current	$V_{CE}= 100\text{V}$; $V_{EB}= 0$		0.7	mA
I_{EBO}	Emitter Cutoff Current	$V_{EB}= 5\text{V}$; $I_C= 0$		1.0	mA
h_{FE-1}	DC Current Gain	$I_C= 1.5\text{A}$; $V_{CE}= 4\text{V}$	25		
h_{FE-2}	DC Current Gain	$I_C= 15\text{A}$; $V_{CE}= 4\text{V}$	15	75	
f_T	Current-Gain—Bandwidth Product	$I_C= 1\text{A}$; $V_{CE}= 10\text{V}$; $f_{test}= 1.0\text{MHz}$	3		MHz