

# SPTECH Product Specification

## 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

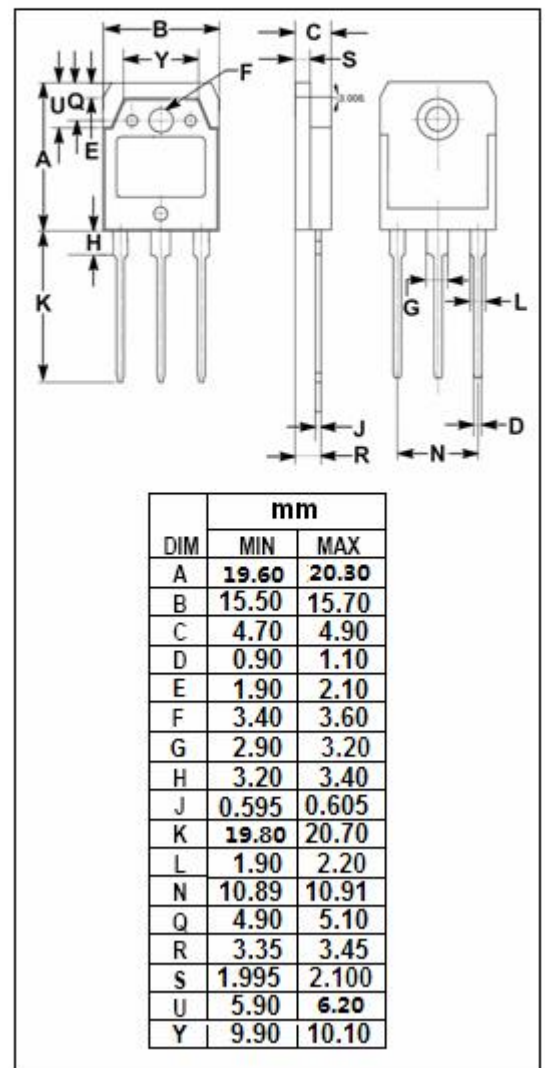
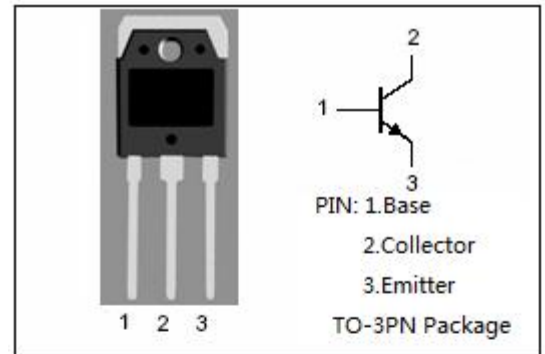
- Designed for use in general purpose power amplifier and switching applications.

#### 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	$^\circ\text{C}/\text{W}$



# 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