

isc Silicon NPN Power Transistor

TIP35B

DESCRIPTION

- DC Current Gain-
: $h_{FE} = 25(\text{Min}) @ I_C = 1.5A$
- Collector-Emitter Sustaining Voltage-
: $V_{CEO(SUS)} = 80V(\text{Min})$
- Complement to Type TIP36B
- Current Gain-Bandwidth Product-
: $f_T = 3.0\text{MHz}(\text{Min}) @ I_C = 1.0A$
- 100% avalanche tested
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

APPLICATIONS

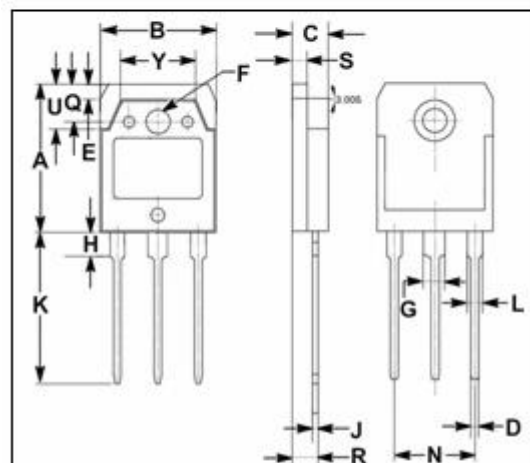
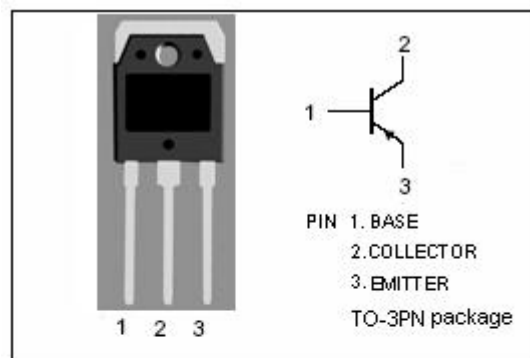
- Designed for use in general purpose power amplifier and switching applications.

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

SYMBOL	PARAMETER	VALUE	UNIT
V_{CBO}	Collector-Base Voltage	80	V
V_{CEO}	Collector-Emitter Voltage	80	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	$^\circ\text{C/W}$



DIM	mm	
	MIN	MAX
A	19.60	20.10
B	15.50	15.70
C	4.70	4.90
D	0.90	1.10
E	1.90	2.10
F	3.40	3.60
G	2.90	3.20
H	3.20	3.40
J	0.595	0.605
K	20.00	20.70
L	1.90	2.20
N	10.89	10.91
Q	4.90	5.10
R	3.35	3.45
S	1.995	2.100
U	5.90	6.10
Y	9.90	10.10

isc Silicon NPN Power Transistor**TIP35B****ELECTRICAL CHARACTERISTICS****T_C=25°C unless otherwise specified**

SYMBOL	PARAMETER	CONDITIONS	MIN	MAX	UNIT
V _{CEO(SUS)}	Collector-Emitter Sustaining Voltage	I _C = 30mA; I _B = 0	80		V
V _{CE(sat)} -1	Collector-Emitter Saturation Voltage	I _C = 15A; I _B = 1.5A		1.8	V
V _{CE(sat)} -2	Collector-Emitter Saturation Voltage	I _C = 25A; I _B = 5A		4.0	V
V _{BE(on)} -1	Base-Emitter On Voltage	I _C = 15A; V _{CE} = 4V		2.0	V
V _{BE(on)} -2	Base-Emitter On Voltage	I _C = 25A; V _{CE} = 4V		4.0	V
I _{CEO}	Collector Cutoff Current	V _{CE} = 60V; I _B = 0		1.0	mA
I _{CES}	Collector Cutoff Current	V _{CE} = 80V; V _{EB} = 0		0.7	mA
I _{EBO}	Emitter Cutoff Current	V _{EB} = 5V; I _C = 0		1.0	mA
h _{FE-1}	DC Current Gain	I _C = 1.5A; V _{CE} = 4V	25		
h _{FE-2}	DC Current Gain	I _C = 15A; V _{CE} = 4V	15		
f _T	Current-Gain—Bandwidth Product	I _C = 1A; V _{CE} = 10V; f _{test} = 1.0MHz	3		MHz

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