

isc Silicon PNP Power Transistor

TIP36

DESCRIPTION

- DC Current Gain-
: $h_{FE} = 25(\text{Min}) @ I_C = -1.5\text{A}$
- Collector-Emitter Sustaining Voltage-
: $V_{CEO(\text{SUS})} = -40\text{V}(\text{Min})$
- Complement to Type TIP35
- Current Gain-Bandwidth Product-
: $f_T = 3.0\text{MHz}(\text{Min}) @ I_C = -1.0\text{A}$
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

APPLICATIONS

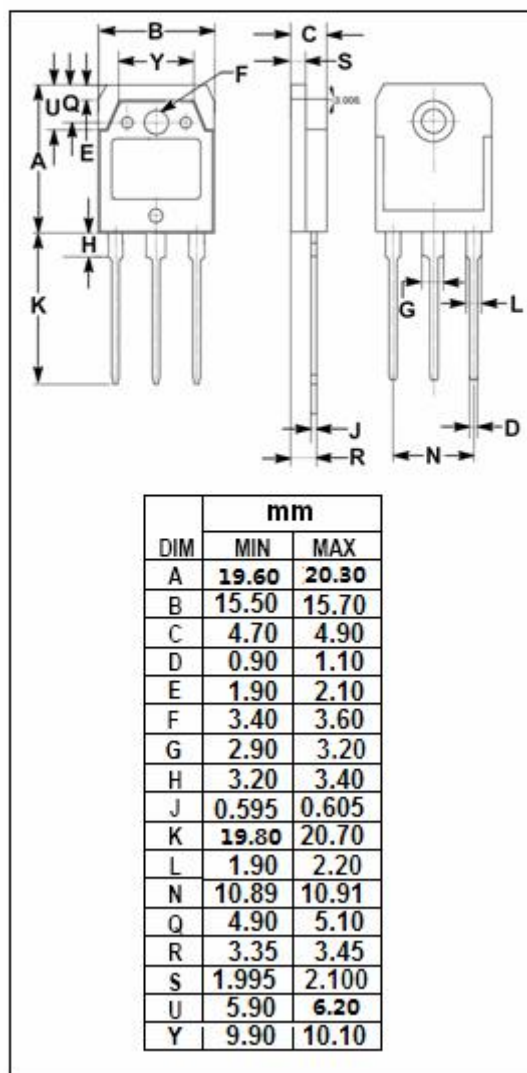
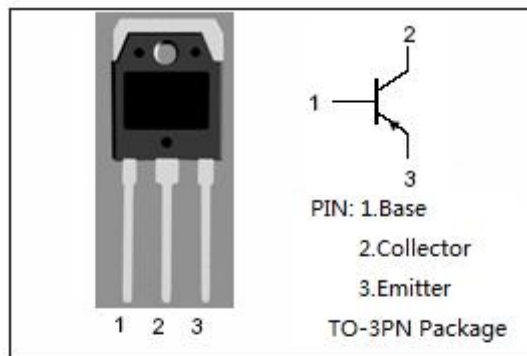
- Designed for use in general purpose power amplifier and switching applications.

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

SYMBOL	PARAMETER	VALUE	UNIT
V_{CBO}	Collector-Base Voltage	-40	V
V_{CEO}	Collector-Emitter Voltage	-40	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 Range	-65~150	$^\circ\text{C}$

THERMAL CHARACTERISTICS

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



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ELECTRICAL CHARACTERISTICS

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

SYMBOL	PARAMETER	CONDITIONS	MIN	MAX	UNIT
$V_{CEO(SUS)}$	Collector-Emitter Sustaining Voltage	$I_C = -30\text{mA}$; $I_B = 0$	-40		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	$V_{CE} = -30\text{V}$; $I_B = 0$		-1.0	mA
I_{CBO}	Collector Cutoff Current	$V_{CB} = -40\text{V}$; $I_E = 0$		-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

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