

isc Silicon NPN Power Transistor

DESCRIPTION

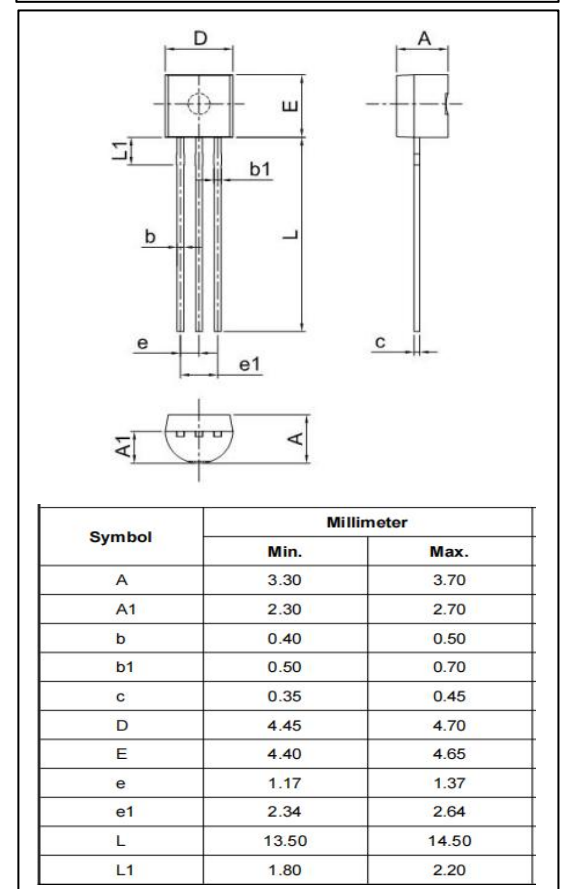
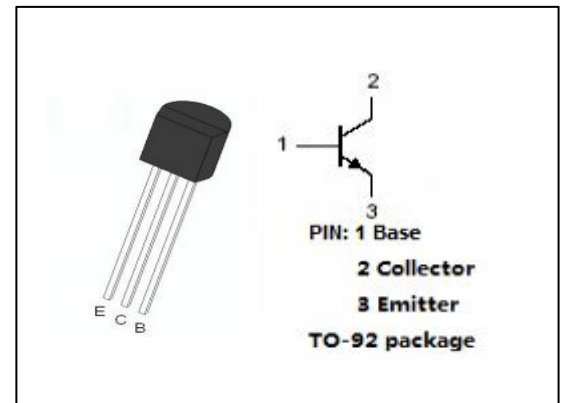
- Collector-Emitter Breakdown Voltage
 $-V_{(BR)CEO} = 150V(\text{Min})$
- Collector-Emitter Saturation Voltage
 $-V_{CE(sat)} = 0.5V(\text{Max}) @ I_C = 10mA$

APPLICATIONS

- Designed for power amplifier, high speed switching and regulated power supply applications.

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

SYMBOL	PARAMETER	VALUE	UNIT
V_{CBO}	Collector-Base Voltage	200	V
V_{CEO}	Collector-Emitter Voltage	150	V
V_{EBO}	Emitter-Base Voltage	5	V
I_C	Collector Current-Continuous	50	mA
I_B	Base Current	20	mA
P_C	Collector Power Dissipation $T_C = 25^\circ\text{C}$	800	mW
T_j	Junction Temperature	150	$^\circ\text{C}$
T_{stg}	Storage Temperature Range	-55~150	$^\circ\text{C}$



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ELECTRICAL CHARACTERISTICS (T_C=25°C unless otherwise specified)

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP	MAX	UNIT
V _{(BR)CBO}	Collector-base breakdown voltage	I _C = 100μA, I _E = 0	200	--	--	V
V _{(BR)CEO}	Collector-emitter breakdown voltage	I _C = 1mA, I _B = 0	150	--	--	V
V _{(BR)EBO}	Emitter-base breakdown voltage	I _E = 100μA, I _C = 0	5	--	--	V
V _{EB(sat)}	Base-Emitter Saturation Voltage	I _C = 10mA, I _B = 1mA	--	--	1.0	V
V _{CE(sat)}	Collector-Emitter Saturation Voltage	I _C = 10mA, I _B = 1mA	--	--	0.5	V
I _{CBO}	Collector Cutoff Current	V _{CB} = 200V; I _E = 0	--	--	0.1	μA
I _{EBO}	Emitter Cutoff Current	V _{EB} = 5V; I _C = 0	--	--	0.1	μA
h _{FE}	DC Current Gain	I _C = 10mA; V _{CE} = 5V	70	--	240	
f _T	Current-Gain—Bandwidth Product	I _C = 10mA ; V _{CE} = 30V	--	120	--	MHz

◆ hFE1 Classifications

O	Y
70-140	120-240

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