

isc Silicon NPN Power Transistor
2N3054
DESCRIPTION

- Continuous Collector Current $I_C = 4A$
- Collector Power Dissipation-
: $P_C = 25W @ T_C = 25^\circ C$
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

APPLICATIONS

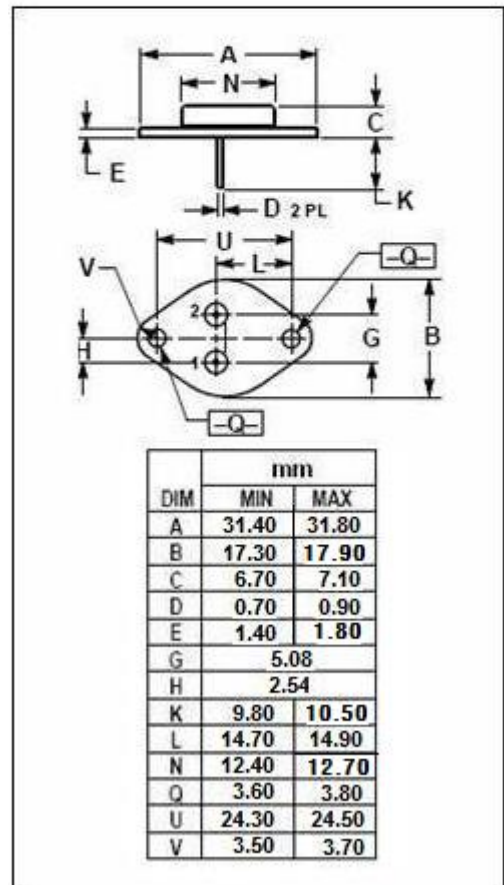
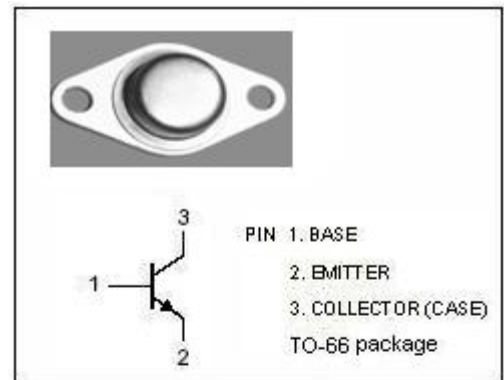
- Designed for general purpose switching and amplifier applications.

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

SYMBOL	PARAMETER	VALUE	UNIT
V_{CBO}	Collector-Base Voltage	90	V
V_{CEV}	Collector-Emitter Voltage	90	V
V_{CER}	Collector-Emitter Voltage	60	V
V_{CEO}	Collector-Emitter Voltage	55	V
V_{EBO}	Emitter-Base Voltage	7	V
I_C	Collector Current-Continuous	4	A
I_B	Base Current-Continuous	2	A
P_C	Collector Power Dissipation@ $T_C = 25^\circ C$	25	W
T_J	Junction Temperature	200	$^\circ C$
T_{stg}	Storage Temperature	-65~200	$^\circ C$

THERMAL CHARACTERISTICS

SYMBOL	PARAMETER	MAX	UNIT
$R_{th(j-c)}$	Thermal Resistance, Junction to Case	7.0	$^\circ C/W$



isc Silicon NPN Power Transistor**2N3054****ELECTRICAL CHARACTERISTICS****T_C=25°C unless otherwise specified**

SYMBOL	PARAMETER	CONDITIONS	MIN	MAX	UNIT
V _{CE0(SUS)}	Collector-Emitter Sustaining Voltage	I _C = 50mA; I _B = 0	55		V
V _{CER}	Collector-Emitter Sustaining Voltage	I _C = 500mA; R _{BE} = 100 Ω	60		V
V _{CE(sat)-1}	Collector-Emitter Saturation Voltage	I _C = 0.5A; I _B = 50mA		1.0	V
V _{CE(sat)-2}	Collector-Emitter Saturation Voltage	I _C = 3A; I _B = 1A		6.0	V
V _{BE(on)}	Base-Emitter On Voltage	I _C = 0.5A; V _{CE} = 4V		1.7	V
I _{CEO}	Collector Cutoff Current	V _{CE} = 30V; I _B = 0		0.5	mA
I _{CEV}	Collector Cutoff Current	V _{CE} = 90V; V _{BE(off)} = 1.5V V _{CE} = 90V; V _{BE(off)} = 1.5V, T _C =150°C		1.0 6.0	mA
I _{EBO}	Emitter Cutoff Current	V _{EB} = 7V; I _C = 0		1.0	mA
h _{FE-1}	DC Current Gain	I _C = 0.5A ; V _{CE} = 4V	25	150	
h _{FE-2}	DC Current Gain	I _C = 3A; V _{CE} = 4V	5		

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