

isc Silicon NPN Power Transistor
TIP3055
DESCRIPTION

- Excellent Safe Operating Area
- DC Current Gain-
: $h_{FE}=20-70@I_C = 4A$
- Collector-Emitter Saturation Voltage-
: $V_{CE(sat)}= 1.1 V(Max)@ I_C = 4A$
- Complement to Type TIP2955
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

APPLICATIONS

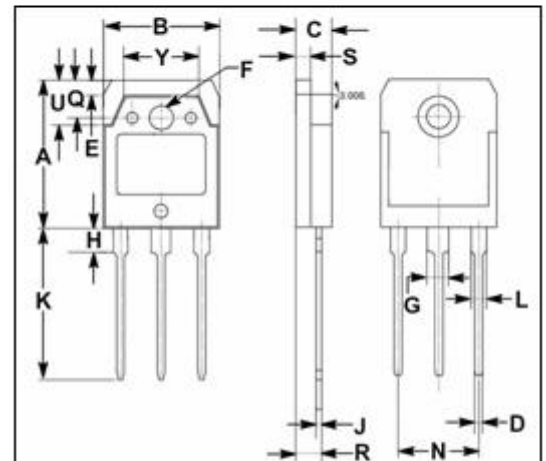
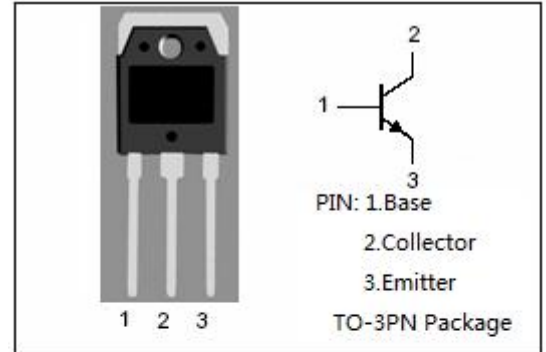
- Designed for general-purpose switching and amplifier applications.

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

SYMBOL	PARAMETER	VALUE	UNIT
V_{CBO}	Collector-Base Voltage	100	V
V_{CEO}	Collector-Emitter Voltage	60	V
V_{EBO}	Emitter-base Voltage	7	V
I_C	Collector Current-Continuous	15	A
I_B	Base Current	7	A
P_C	Collector Power Dissipation@ $T_c=25^{\circ}C$	90	W
T_j	Junction Temperature	150	$^{\circ}C$
T_{stg}	Storage Temperature Range	-65~150	$^{\circ}C$

THERMAL CHARACTERISTICS

SYMBOL	PARAMETER	VALUE	UNIT
$R_{th\ j-c}$	Thermal Resistance, Junction to Case	1.39	$^{\circ}C/W$
$R_{th\ j-a}$	Thermal Resistance, Junction to Ambient	35.7	$^{\circ}C/W$



DIM	mm	
	MIN	MAX
A	19.60	20.30
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	19.80	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	6.20
Y	9.90	10.10

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ELECTRICAL CHARACTERISTICS

T_C=25°C unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	MAX	UNIT
V _{CE0(SUS)}	Collector-Emitter Sustaining Voltage	I _C = 30mA ;I _B = 0	60		V
V _{CE(sat)-1}	Collector-Emitter Saturation Voltage	I _C = 4A ;I _B = 0.4A		1.1	V
V _{CE(sat)-2}	Collector-Emitter Saturation Voltage	I _C = 10A ;I _B = 3.3A		3.0	V
V _{BE(on)}	Base-Emitter On Voltage	I _C = 4A ; V _{CE} = 4V		1.8	V
I _{CEO}	Collector Cutoff Current	V _{CE} = 30V; I _B =0		0.7	mA
I _{CBO}	Collector Cutoff Current	V _{CB} = 100V; I _E =0		1.0	mA
I _{EBO}	Emitter Cutoff Current	V _{EB} = 7V; I _C = 0		5.0	mA
h _{FE-1}	DC Current Gain	I _C = 4A ; V _{CE} = 4V	20	70	
h _{FE-2}	DC Current Gain	I _C = 10A ; V _{CE} = 4V	5		
I _{s/b}	Second Breakdown Collector Current with Base Forward Biased	V _{CE} = 30V,t= 1.0s,Nonrepetitive	3.0		A
f _T	Current-Gain—Bandwidth Product	I _C = 0.5A ; V _{CE} = 10V;f _{test} = 1.0MHz	2.5		MHz

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