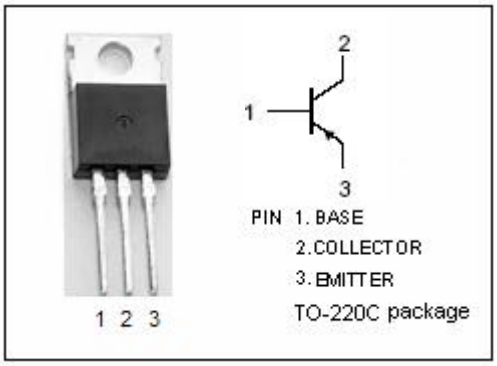
isc Silicon PNP Power Transistor — TIP2955T

DESCRIPTION

- Excellent Safe Operating Area
- DC Current Gain-
  : h_{FE}=20-70@I_C = 4A
- Collector-Emitter Saturation Voltage-
  : $V_{CE(sat)}$= 0.8V(Max)@ I_C = 4A
- Complement to Type TIP2955T
- Minimum Lot-to-Lot variations for robust device performance and reliable operation



APPLICATIONS

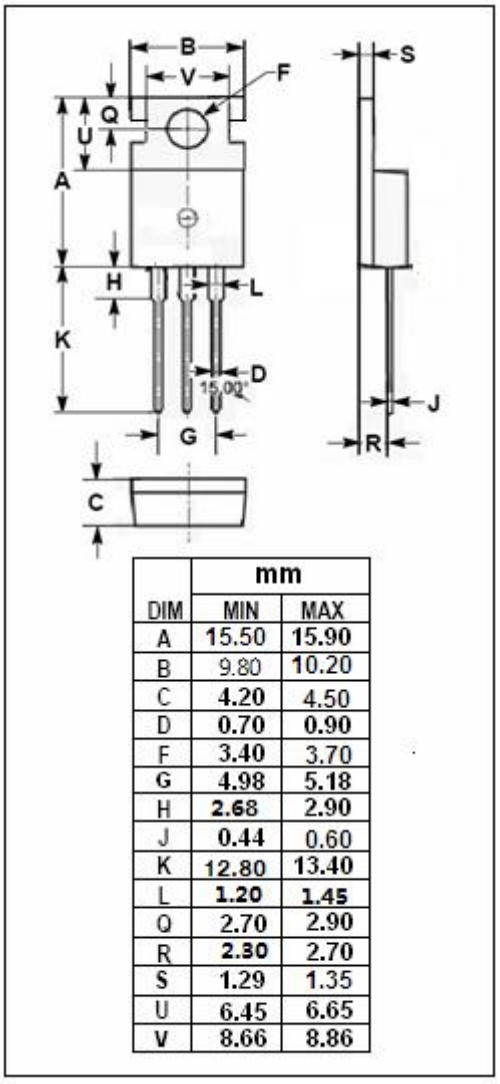
- Designed for general-purpose switching and amplifier applications.

ABSOLUTE MAXIMUM RATINGS(T_a=25℃)

SYMBOL	PARAMETER	VALUE	UNIT
V_{CBO}	Collector-Base Voltage	-70	V
V_{CEO}	Collector-Emitter Voltage	-60	V
V_{EBO}	Emitter-base Voltage	-5	V
I_C	Collector Current-Continuous	-10	A
I_C	Collector Current-Peak	-12	A
I_B	Base Current	-4	A
P_C	Collector Power Dissipation@T_C=25℃	75	W
T_j	Junction Tmperature	150	℃
T_{stg}	Storage Temperature Range	-65~175	℃

THERMAL CHARACTERISTICS

SYMBOL	PARAMETER	VALUE	UNIT
$R_{th\ j\text{-}c}$	Thermal Resistance,Junction to Case	1.67	℃/W
$R_{th\ j\text{-}a}$	Thermal Resistance,Junction to Ambient	70	℃/W



DIM	mm MIN	MAX
A	15.50	15.90
B	9.80	10.20
C	4.20	4.50
D	0.70	0.90
F	3.40	3.70
G	4.98	5.18
H	2.68	2.90
J	0.44	0.60
K	12.80	13.40
L	1.20	1.45
Q	2.70	2.90
R	2.30	2.70
S	1.29	1.35
U	6.45	6.65
V	8.66	8.86

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ELECTRICAL CHARACTERISTICS

T_C=25℃ unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	MAX	UNIT
$V_{CEO(SUS)}$	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		-0.8	V
$V_{CE(sat)-2}$	Collector-Emitter Saturation Voltage	I_C= -10A; I_B= -3.3A		-4.0	V
$V_{BE(sat)}$	Base-Emitter Saturation Voltage	I_C= -4A; I_B= -0.4A		-1.8	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		-0.2	mA
I_{CBO}	Collector Cutoff Current	V_{CB}= -70V; I_E=0; V_{CB}= -70V; I_E=0; T_j= 150℃		-0.1 -1.0	mA
I_{EBO}	Emitter Cutoff Current	V_{EB}= -5V; I_C= 0		-0.5	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		
f_T	Current-Gain—Bandwidth Product	I_C=- 0.5A ; V_{CE}= -10V	2		MHz
Switching Times					
t_{on}	Turn-On Time	I_C= 2A; I_{B1}= -I_{B2}= 0.2A		1.0	μs
t_f	Turn-Off Time			4.0	μs

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