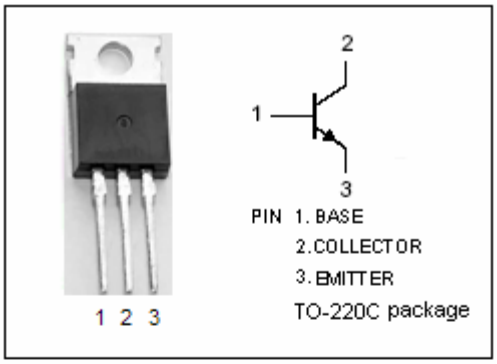
isc Silicon NPN Power Transistor ISC54

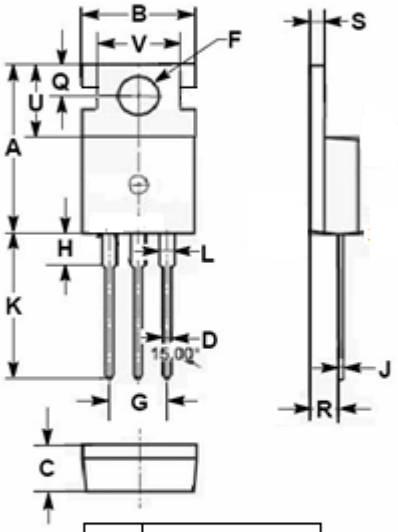


DESCRIPTION

- Low Collector Saturation Voltage
  : $V_{CE(sat)}$= 0.5V(Max)@ I_C=1A
- Collector-Emitter Breakdown Voltage-
  : $V_{(BR)CEO}$= 150V (Min)
- Good Linearity of h_{FE}

APPLICATIONS

- Designed for High Frequency Driver for Audio Amplifier.



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

ABSOLUTE MAXIMUM RATINGS(T_a=25℃)

SYMBOL	PARAMETER	VALUE	UNIT
V_{CBO}	Collector-Base Voltage	150	V
V_{CEO}	Collector-Emitter Voltage	150	V
V_{EBO}	Emitter-Base Voltage	5	V
I_C	Collector Current-Continuous	8	A
I_{CM}	Collector Current-Pulse	16	A
P_C	Collector Power Dissipation @ T_C=25℃	50	W
T_J	Junction Temperature	150	℃
T_{stg}	Storage Temperature Range	-55~150	℃

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ELECTRICAL CHARACTERISTICS

T_C=25℃ unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
$V_{(BR)CEO}$	Collector-Emitter Breakdown Voltage	I_C= 10mA ; I_B= 0	150			V
$V_{CE(sat)}$	Collector-Emitter Saturation Voltage	I_C= 1A; I_B= 0.1A			0.5	V
$V_{BE(on)}$	Base-Emitter Voltage	I_C= 1A;V_{CE}=2V			1.0	V
I_{CEO}	Collector Cutoff Current	V_{CE}= 150V; I_B= 0			100	μ A
I_{CBO}	Collector Cutoff Current	V_{CB}= 150V; I_E= 0			10	μ A
I_{EBO}	Emitter Cutoff Current	V_{EB}= 5V; I_C= 0			10	μ A
h_{FE-1}	DC Current Gain	I_C= 0.1A ; V_{CE}= 20V	40			
h_{FE-2}	DC Current Gain	I_C= 2A ; V_{CE}= 20V	40			
h_{FE-3}	DC Current Gain	I_C= 0.1A ; V_{CE}= 2V	40			
h_{FE-4}	DC Current Gain	I_C= 2A ; V_{CE}= 2V	20			
h_{FE}	DC Current Gain Linearity	V_{CE} from 2V to 20V, I_C from 0.1A to 3A		2		
f_T	Current-Gain—Bandwidth Product	I_C= 0.5A ; V_{CE}= 10V	30			MHz