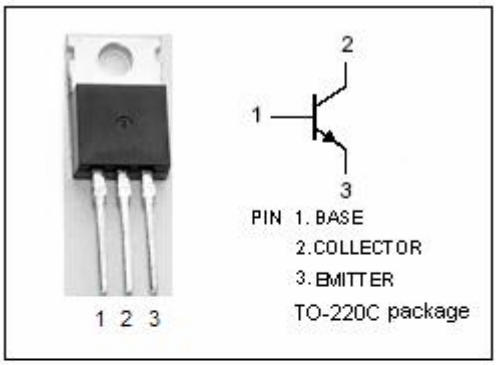
isc Silicon NPN Power Transistor 2SC5174

DESCRIPTION

- Silicon NPN epitaxial type
- Low Collector Saturation Voltage
- High transition frequency
- Complementary to 2SA1932
- Good Linearity of h_{FE}
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

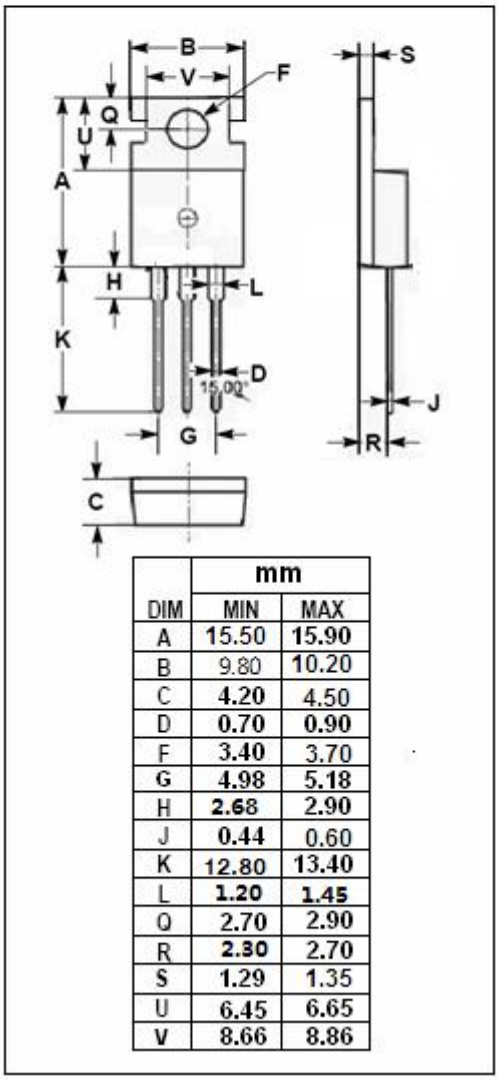


APPLICATIONS

- Power amplifier applications
- Driver stage amplifier applications

ABSOLUTE MAXIMUM RATINGS(T_a=25℃)

SYMBOL	PARAMETER	VALUE	UNIT
V_{CBO}	Collector-Base Voltage	230	V
V_{CEO}	Collector-Emitter Voltage	230	V
V_{EBO}	Emitter-Base Voltage	5	V
I_C	Collector Current-Continuous	1	A
I_{CM}	Collector Current-Pulse	3	A
I_B	Base Current-Continuous	0.1	A
P_C	Collector Power Dissipation @ T_C=25℃	1.8	W
T_J	Junction Temperature	150	℃
T_{stg}	Storage Temperature Range	-55~150	℃



DIM	mm MIN	mm 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	TYP.	MAX	UNIT
$V_{(BR)CEO}$	Collector-Emitter Breakdown Voltage	I_C= 10mA ; I_B= 0	230			V
$V_{CE(sat)}$	Collector-Emitter Saturation Voltage	I_C= 500mA; I_B= 50mA			1.0	V
$V_{BE(ON)}$	Base-Emitter On Voltage	I_C= 500mA; V_{CE}= 5V			1.5	V
I_{CBO}	Collector Cutoff Current	V_{CB}= 230V; I_E= 0			1	μA
I_{EBO}	Emitter Cutoff Current	V_{EB}= 5V; I_C= 0			1	μA
h_{FE}	DC Current Gain	I_C= 0.1A ; V_{CE}= 5V	100		320	
f_T	Current-Gain—Bandwidth Product	I_E= 0.1A ; V_{CE}= 10V		100		MHz
C_{OB}	Output Capacitance	I_E= 0 ; V_{CB}= 10V;f_{test}= 1.0MHz		20		pF