

isc Silicon NPN Power Transistor
2SC5174
DESCRIPTION

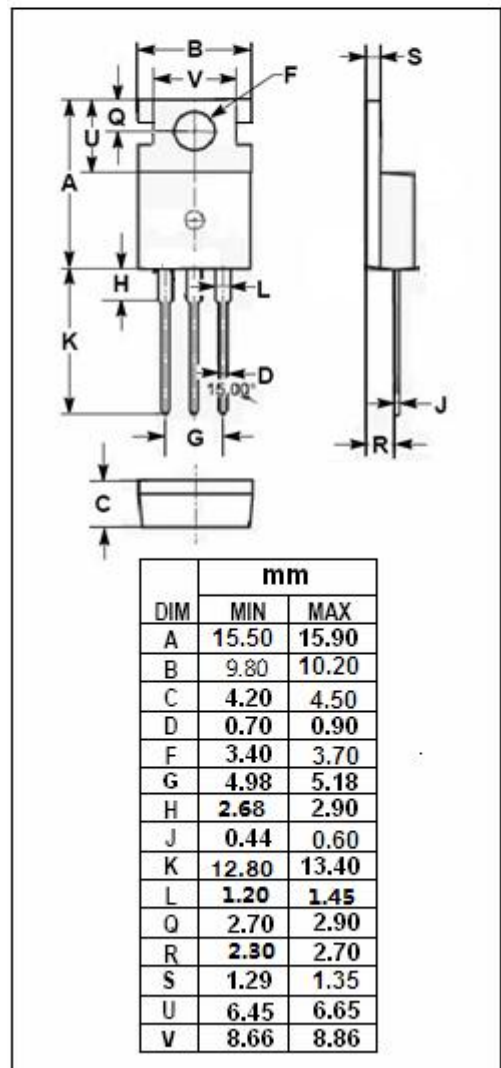
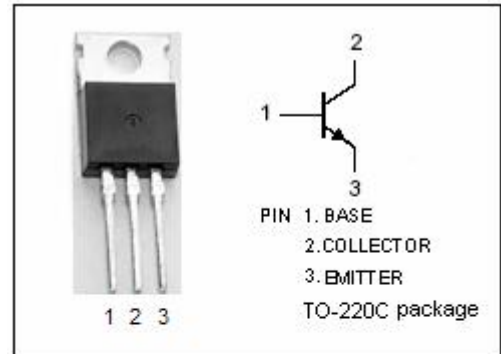
- Silicon NPN epitaxial type
- Low Collector Saturation Voltage
- High transition frequency
- Complementary to 2SA1932
- Good Linearity of h_{FE}
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

APPLICATIONS

- Power amplifier applications
- Driver stage amplifier applications

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

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 @ $T_c=25^\circ\text{C}$	1.8	W
T_J	Junction Temperature	150	$^\circ\text{C}$
T_{stg}	Storage Temperature Range	-55~150	$^\circ\text{C}$



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ELECTRICAL CHARACTERISTICS

T_c=25°C 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	μ A
I _{EBO}	Emitter Cutoff Current	V _{EB} = 5V; I _C = 0			1	μ A
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

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