

isc Silicon NPN Power Transistor
2SC3514
DESCRIPTION

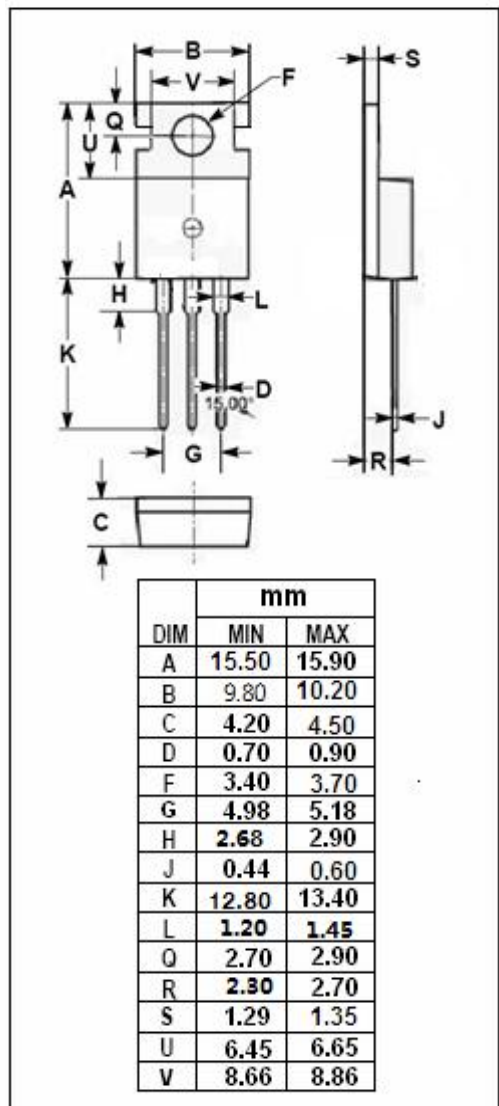
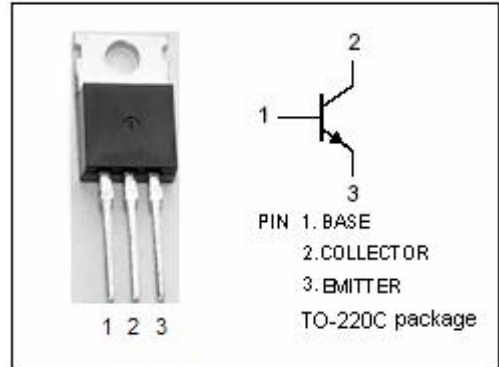
- High Collector-Emitter Breakdown Voltage-
: $V_{(BR)CEO} = 180V(\text{Min})$
- Good Linearity of h_{FE}
- Complement to Type 2SA1383
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

APPLICATIONS

- Audio frequency power amplifier

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

SYMBOL	PARAMETER	VALUE	UNIT
V_{CBO}	Collector-Base Voltage	180	V
V_{CEO}	Collector-Emitter Voltage	180	V
V_{EBO}	Emitter-Base Voltage	5.0	V
I_C	Collector Current-Continuous	0.1	A
P_C	Collector Power Dissipation@ $T_a = 25^\circ\text{C}$	1.5	W
	Collector Power Dissipation@ $T_c = 25^\circ\text{C}$	10	
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 _{CE(sat)}	Collector-Emitter Saturation Voltage	I _C = 50mA; I _B = 5mA			0.5	V
V _{BE(sat)}	Base-Emitter Saturation Voltage	I _C = 50mA; I _B = 5mA			1.5	V
I _{CBO}	Collector Cutoff Current	V _{CB} = 180V; I _E = 0			1.0	μA
I _{EBO}	Emitter Cutoff Current	V _{EB} = 3.0V; I _C =0			1.0	μA
h _{FE-1}	DC Current Gain	I _C = 1mA; V _{CE} = 5V	90			
h _{FE-2}	DC Current Gain	I _C = 10mA; V _{CE} = 5V	100		320	
f _T	Current-Gain—Bandwidth Product	I _C = 20mA; V _{CE} = 10V	50			MHz
C _{OB}	Output Capacitance	I _E = 0; V _{CB} = 10V; f _{test} = 1.0MHz		3.2		pF

◆ h_{FE-2} Classifications

Q	P
100-200	160-320

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