

isc Silicon NPN Power Transistor

2SC3514

DESCRIPTION

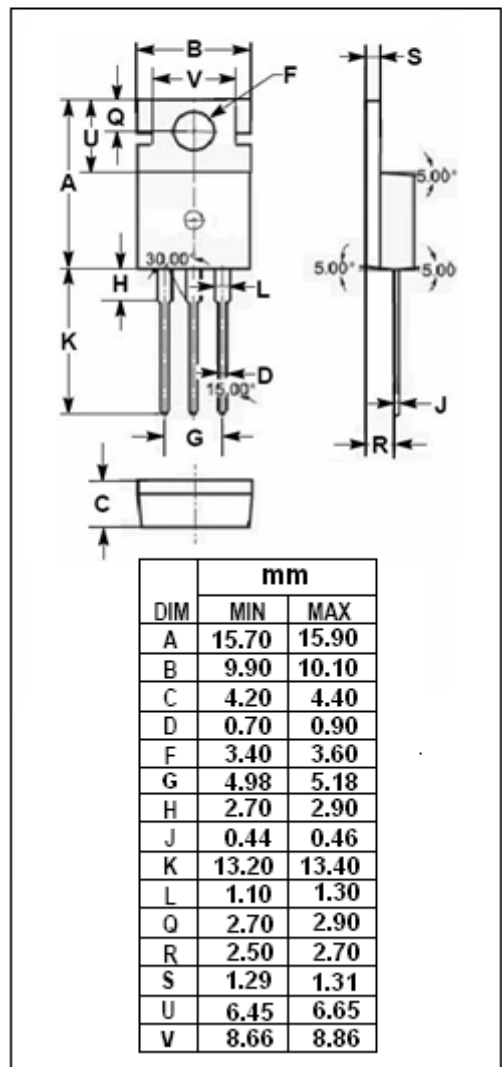
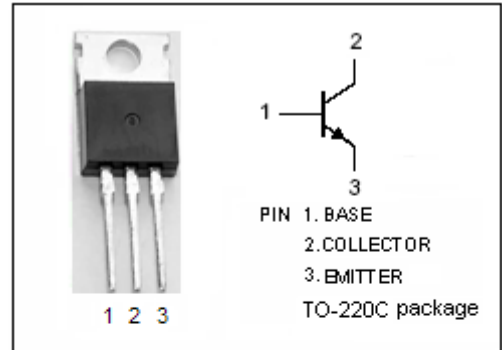
- High Collector-Emitter Breakdown Voltage-
: $V_{(BR)CEO} = 180V(\text{Min})$
- Good Linearity of h_{FE}
- Complement to Type 2SA1383

APPLICATIONS

- A 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	$^\circ\text{C}$



isc Silicon NPN Power Transistor**2SC3514****ELECTRICAL CHARACTERISTICS** $T_C=25^{\circ}\text{C}$ unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
$V_{CE(sat)}$	Collector-Emitter Saturation Voltage	$I_C=50\text{mA}; I_B=5\text{mA}$			0.5	V
$V_{BE(sat)}$	Base-Emitter Saturation Voltage	$I_C=50\text{mA}; I_B=5\text{mA}$			1.5	V
I_{CBO}	Collector Cutoff Current	$V_{CB}=180\text{V}; I_E=0$			1.0	μA
I_{EBO}	Emitter Cutoff Current	$V_{EB}=3.0\text{V}; I_C=0$			1.0	μA
h_{FE-1}	DC Current Gain	$I_C=1\text{mA}; V_{CE}=5\text{V}$	90			
h_{FE-2}	DC Current Gain	$I_C=10\text{mA}; V_{CE}=5\text{V}$	100		320	
f_T	Current-Gain—Bandwidth Product	$I_C=20\text{mA}; V_{CE}=10\text{V}$		200		MHz
C_{OB}	Output Capacitance	$I_E=0; V_{CB}=10\text{V}; f_{test}=1.0\text{MHz}$		3.2		pF

◆ **h_{FE-2} Classifications**

Q	P
100-200	160-320