

isc Silicon NPN Power Transistor

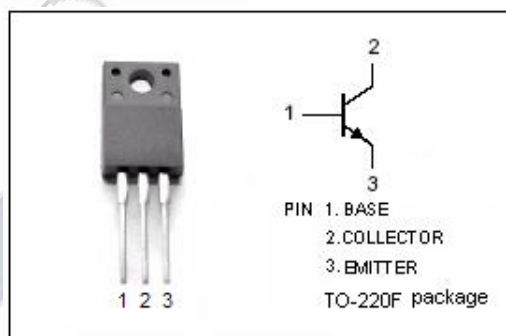
2SC3944A

DESCRIPTION

- High Collector-Emitter Breakdown Voltage-
: $V_{(BR)CEO} = 180V(\text{Min})$
- Good Linearity of h_{FE}
- Complement to Type 2SA1535A
- Good Linearity of h_{FE}
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

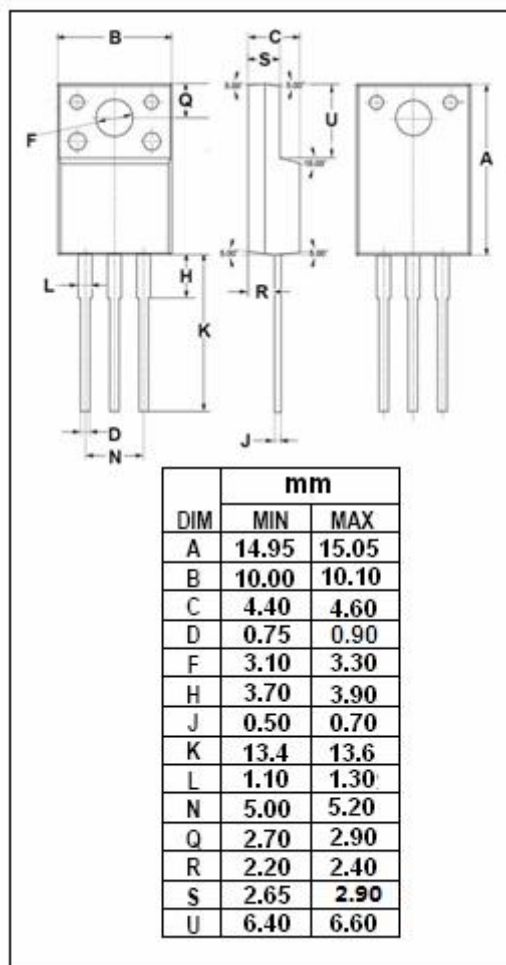
APPLICATIONS

- For low frequency driver and high power amplification.



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

SYMBOL	PARAMETER	VALUE	UNIT
V_{CBO}	Collector-Base Voltage	180	V
V_{CEO}	Collector-Emitter Voltage	180	V
V_{EBO}	Emitter-Base Voltage	5	V
I_C	Collector Current-Continuous	1	A
I_{CM}	Collector Current-Peak	1.5	A
P_C	Collector Power Dissipation @ $T_c=25^{\circ}C$	15	W
	Collector Power Dissipation @ $T_a=25^{\circ}C$	2	
T_J	Junction Temperature	150	$^{\circ}C$
T_{stg}	Storage Temperature Range	-55~150	$^{\circ}C$



isc Silicon NPN Power Transistor**2SC3944A****ELECTRICAL CHARACTERISTICS** $T_C=25^\circ\text{C}$ unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
$V_{(BR)CEO}$	Collector-Emitter Breakdown Voltage	$I_C=1\text{mA}; I_B=0$	180			V
$V_{(BR)EBO}$	Emitter-Base Breakdown Voltage	$I_E=10\ \mu\text{A}; I_C=0$	5			V
$V_{CE(sat)}$	Collector-Emitter Saturation Voltage	$I_C=0.5\text{A}; I_B=50\text{mA}$			2.0	V
$V_{BE(sat)}$	Base-Emitter Saturation Voltage	$I_C=0.5\text{A}; I_B=50\text{mA}$			2.0	V
I_{CBO}	Collector Cutoff Current	$V_{CB}=180\text{V}; I_E=0$			10	μA
h_{FE-1}	DC Current Gain	$I_C=150\text{mA}; V_{CE}=10\text{V}$	95		220	
h_{FE-2}	DC Current Gain	$I_C=0.5\text{A}; V_{CE}=5\text{V}$	50			
f_T	Current-Gain—Bandwidth Product	$I_E=-50\text{mA}; V_{CE}=10\text{V}$		200		MHz
C_{OB}	Output Capacitance	$I_E=0; V_{CB}=10\text{V}, f_{test}=1\text{MHz}$		30		pF

◆ **h_{FE-1} Classifications**

Q	R
95-155	130-220