

isc Silicon PNP Power Transistors

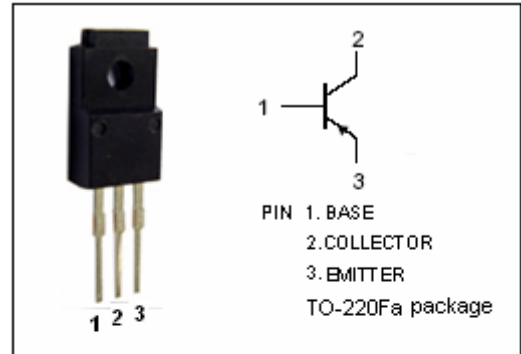
2SA1306/A/B

DESCRIPTION

- Good Linearity of  $h_{FE}$
- High Collector-Emitter Breakdown Voltage-  
 $V_{(BR)CEO} = -160V(\text{Min})$ -2SA1306  
 $= -180V(\text{Min})$ -2SA1306A  
 $= -200V(\text{Min})$ -2SA1306B
- Complement to Type 2SC3298/A/B

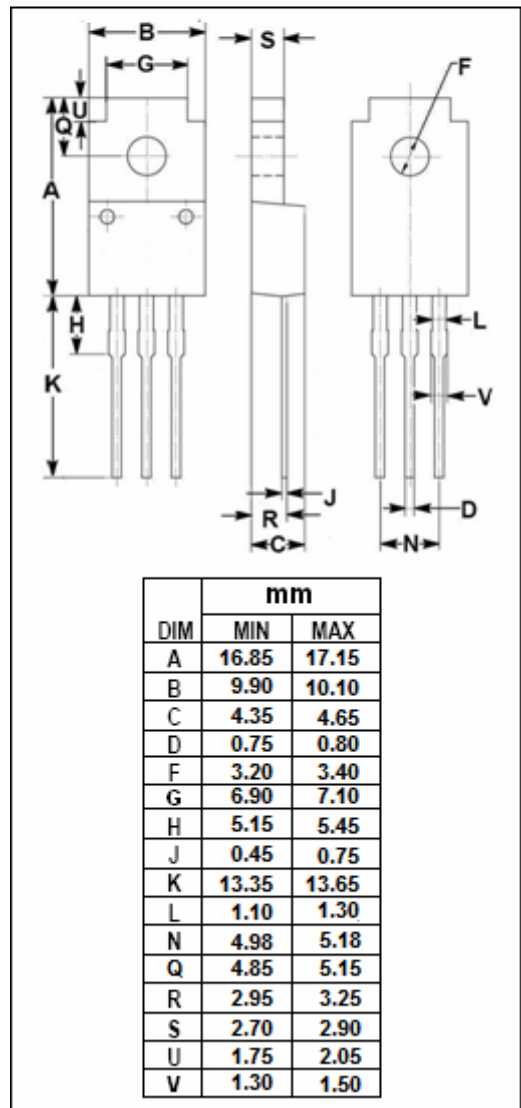
APPLICATIONS

- Power amplifier applications.
- Driver stage amplifier applications.



ABSOLUTE MAXIMUM RATINGS(Ta=25°C)

SYMBOL	PARAMETER	VALUE	UNIT	
V <sub>CBO</sub>	Collector-Base Voltage	2SA1306	-160	V
		2SA1306A	-180	
		2SA1306B	-200	
V <sub>CEO</sub>	Collector-Emitter Voltage	2SA1306	-160	V
		2SA1306A	-180	
		2SA1306B	-200	
V <sub>EBO</sub>	Emitter-Base Voltage	-5	V	
I <sub>C</sub>	Collector Current-Continuous	-1.5	A	
I <sub>B</sub>	Base Current-Continuous	-0.15	A	
P <sub>C</sub>	Collector Power Dissipation @ T <sub>C</sub> =25°C	20	W	
T <sub>J</sub>	Junction Temperature	150	°C	
T <sub>stg</sub>	Storage Temperature Range	-55~150	°C	



## isc Silicon PNP Power Transistors

## 2SA1306/A/B

## 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	2SA1306	-160			V
		2SA1306A	-180			
		2SA1306B	-200			
$V_{CE(sat)}$	Collector-Emitter Saturation Voltage	$I_C = -500\text{mA}; I_B = -50\text{mA}$			-1.5	V
$V_{BE(on)}$	Base-Emitter On Voltage	$I_C = -500\text{mA}; V_{CE} = -5\text{V}$			-1.0	V
$I_{CBO}$	Collector Cutoff Current	$V_{CB} = -160\text{V}; I_E = 0$			-1.0	$\mu\text{A}$
$I_{EBO}$	Emitter Cutoff Current	$V_{EB} = -5\text{V}; I_C = 0$			-1.0	$\mu\text{A}$
$h_{FE}$	DC Current Gain	$I_C = -100\text{mA}; V_{CE} = -5\text{V}$	70		240	
$f_T$	Current-Gain—Bandwidth Product	$I_C = -100\text{mA}; V_{CE} = -10\text{V}$		100		MHz
$C_{OB}$	Output Capacitance	$I_E = 0; V_{CB} = -10\text{V}; f_{test} = 1.0\text{MHz}$		30		pF

◆  $h_{FE}$  Classifications

O	Y
70-140	120-240