

### INCHANGE SEMICONDUCTOR

### **isc** Silicon PNP Power Transistors

# 2SA1306/A

### DESCRIPTION

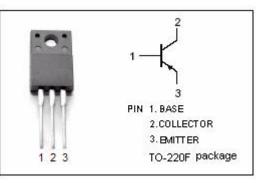
- Good Linearity of  $h_{\text{FE}}$
- · High Collector-Emitter Breakdown Voltage-
- V<sub>(BR)CEO</sub>= -160V(Min)-2SA1306 = -180V(Min)-2SA1306A
- Complement to Type 2SC3298/A
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

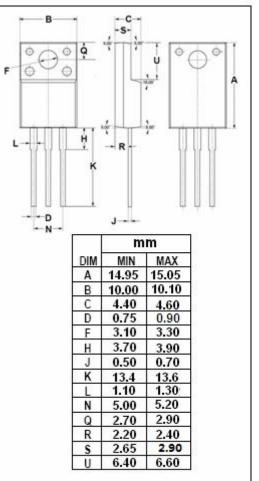
#### **APPLICATIONS**

- Power amplifier applications.
- Driver stage amplifier applications.

# ABSOLUTE MAXIMUM RATINGS(Ta=25℃)

SYMBOL	PARAMETE	VALUE	UNIT		
V <sub>CBO</sub>	Collector-Base Voltage	2SA1306	-160	v	
		2SA1306A	-180		
Vceo	Collector-Emitter Voltage	2SA1306	-160		
		2SA1306A	-180	V	
Vebo	Emitter-Base Voltage		-5	V	
Ic	Collector Current-Continuous		-1.5	А	
I <sub>B</sub>	Base Current-Continuous		-0.15	А	
Pc	Collector Power Dissipation @ T <sub>C</sub> =25℃		20	W	
TJ	Junction Temperature		150	°C	
T <sub>stg</sub>	Storage Temperature Range		-55~150	Ĉ	





isc website: <u>www.iscsemi.com</u>

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### **ELECTRICAL CHARACTERISTICS**

#### $T_c=25^{\circ}C$ unless otherwise specified

SYMBOL	PARAMETER		CONDITIONS	MIN	TYP.	МАХ	UNIT
V <sub>(BR)CEO</sub>	Collector-Emitter Breakdown Voltage	2SA1306	I <sub>C</sub> = -10mΑ; I <sub>B</sub> = 0	-160			V
		2SA1306A		-180			
V <sub>CE(sat)</sub>	Collector-Emitter Saturation Voltage		lc= -500mA; l <sub>B</sub> = -50mA			-1.5	V
$V_{\text{BE(on)}}$	Base-Emitter On Voltage		I <sub>C</sub> = -500mA; V <sub>CE</sub> = -5V			-1.0	V
I <sub>CBO</sub>	Collector Cutoff Current		V <sub>CB</sub> = -160V; I <sub>E</sub> = 0			-1.0	μ Α
І <sub>ЕВО</sub>	Emitter Cutoff Current		V <sub>EB</sub> = -5V; I <sub>C</sub> =0			-1.0	μA
h <sub>FE</sub>	DC Current Gain		I <sub>C</sub> = -100mA ; V <sub>CE</sub> = -5V	70		240	
f⊤	Current-Gain—Bandwidth Product		Ic= -100mA ; Vce= -10V		100		MHz
Сов	Output Capacitance		I <sub>E</sub> = 0 ; V <sub>CB</sub> = -10V;f <sub>test</sub> = 1.0MHz		30		pF

### • h<sub>FE</sub> Classifications

0	Y	
70-140	120-240	

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