

**isc Silicon PNP Power Transistor**

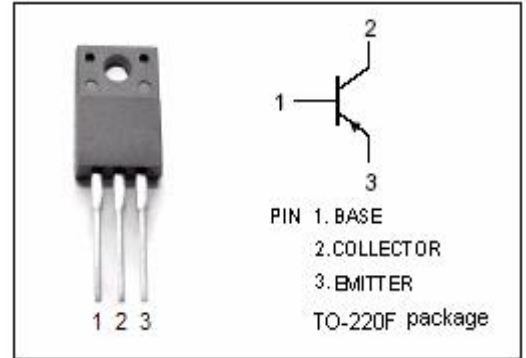
**2SA1306 A B**

**DESCRIPTION**

- With TO-220F packaging
- Complement to Type 2SC3298 A B
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

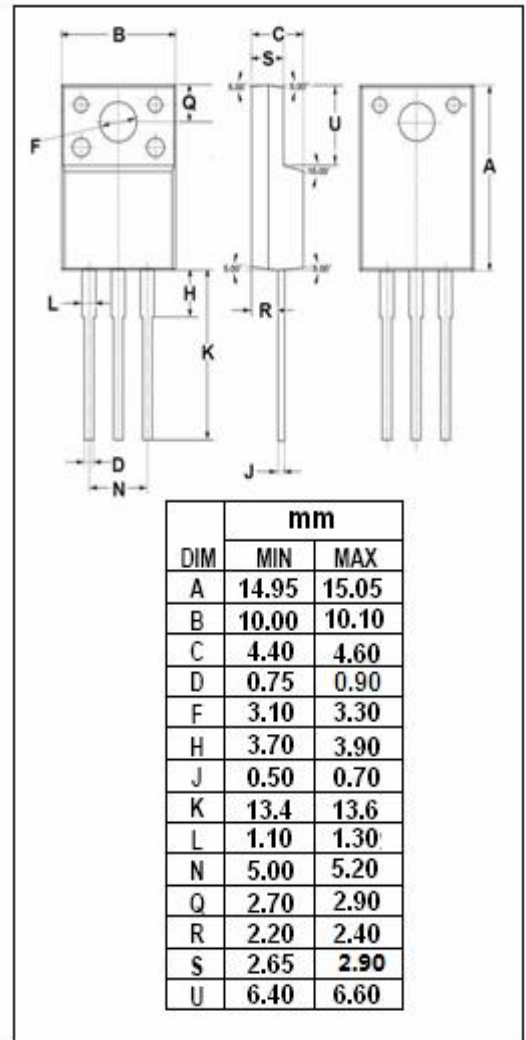
**APPLICATIONS**

- AC-DC motor control
- Electronic ignition
- Alternator regulator



**ABSOLUTE MAXIMUM RATINGS(T<sub>a</sub>=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 Transistor****2SA1306 A B****ELECTRICAL CHARACTERISTICS**T<sub>c</sub>=25°C unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
V <sub>(BR)CEO</sub>	Collector-Emitter Breakdown Voltage	I <sub>C</sub> = -10mA ; I <sub>B</sub> = 0	2SA1306	-160		V
			2SA1306A	-180		
			2SA1306B	-200		
V <sub>(BR)EBO</sub>	Emitter-Base Breakdown Voltage	I <sub>E</sub> = -1mA ; I <sub>C</sub> = 0	-5			V
V <sub>CE(sat)</sub>	Collector-Emitter Saturation Voltage	I <sub>C</sub> = -500mA; I <sub>B</sub> = -50mA			-1.5	V
V <sub>BE(on)</sub>	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	2SA1306		-1.0	μ A
		V <sub>CB</sub> = -180V ; I <sub>E</sub> = 0	2SA1306A			
		V <sub>CB</sub> = -200V ; I <sub>E</sub> = 0	2SA1306B			
I <sub>EBO</sub>	Emitter Cutoff Current	V <sub>EB</sub> = -5V; I <sub>C</sub> =0			-1.0	μ A
h <sub>FE</sub>	DC Current Gain	I <sub>C</sub> = -100mA ; V <sub>CE</sub> = -5V	70		240	
f <sub>T</sub>	Current-Gain—Bandwidth Product	I <sub>C</sub> = -100mA ; V <sub>CE</sub> = -10V		100		MHz
C <sub>OB</sub>	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**

O	Y
70-140	120-240