

isc Silicon PNP Power Transistors

2SA1306/A

DESCRIPTION

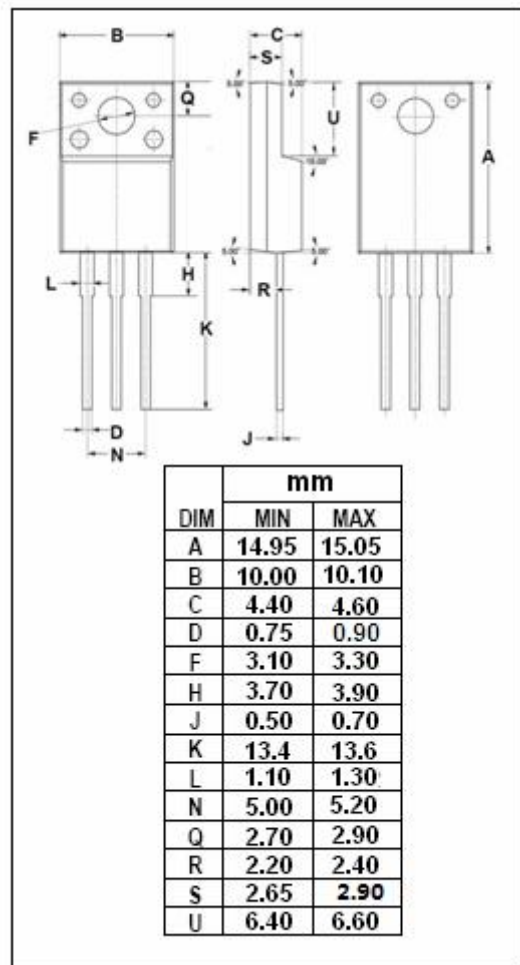
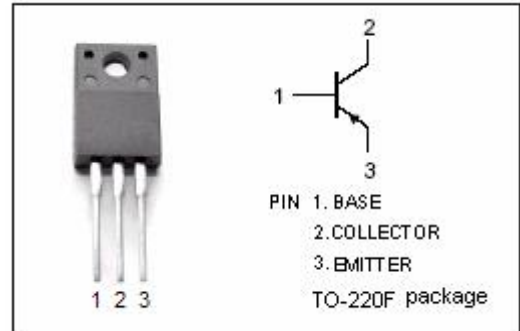
- Good Linearity of h_{FE}
- High Collector-Emitter Breakdown Voltage-
 $V_{(BR)CEO} = -160V(\text{Min})-2SA1306$
 $= -180V(\text{Min})-2SA1306A$
- Complement to Type 2SC3298/A
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

APPLICATIONS

- Power amplifier applications.
- Driver stage amplifier applications.

ABSOLUTE MAXIMUM RATINGS(Ta=25°C)

SYMBOL	PARAMETER	VALUE	UNIT	
V _{CBO}	Collector-Base Voltage	2SA1306	-160	V
		2SA1306A	-180	
V _{CEO}	Collector-Emitter Voltage	2SA1306	-160	V
		2SA1306A	-180	
V _{EBO}	Emitter-Base Voltage	-5	V	
I _C	Collector Current-Continuous	-1.5	A	
I _B	Base Current-Continuous	-0.15	A	
P _C	Collector Power Dissipation @ T _C =25°C	20	W	
T _J	Junction Temperature	150	°C	
T _{stg}	Storage Temperature Range	-55~150	°C	



isc Silicon PNP Power Transistors**2SA1306/A****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	$I_C = -10\text{mA}; I_B = 0$	-160			V
		2SA1306A		-180			
$V_{CE(sat)}$	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	μA
I_{EBO}	Emitter Cutoff Current		$V_{EB} = -5\text{V}; I_C = 0$			-1.0	μA
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