

INCHANGE Semiconductor

isc Product Specification

isc Silicon PNP Power Transistors

2SA1306/A/B

DESCRIPTION

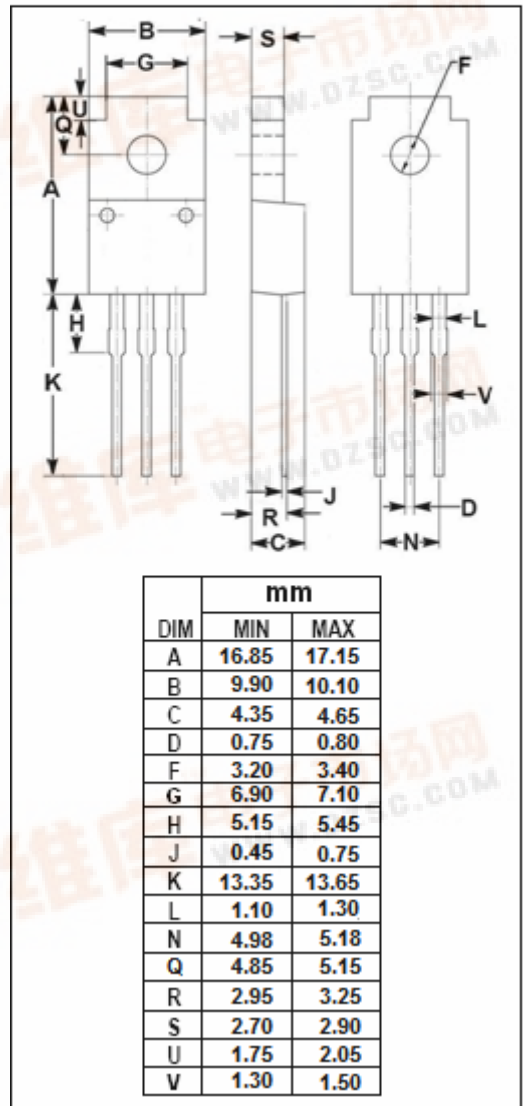
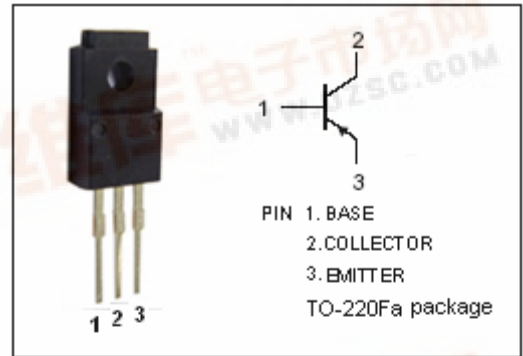
- Good Linearity of h_{FE}
- High Collector-Emitter Breakdown Voltage-
 $V_{(BR)CEO} = -160V(\text{Min})$ -2SA1306
 $= -180V(\text{Min})$ -2SA1306A
 $= -200V(\text{Min})$ -2SA1306B
- Complement to Type 2SC3298/A/B

APPLICATIONS

- Power amplifier applications.
- Driver stage amplifier applications.

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

SYMBOL	PARAMETER	VALUE	UNIT	
V_{CBO}	Collector-Base Voltage	2SA1306	-160	V
		2SA1306A	-180	
		2SA1306B	-200	
V_{CEO}	Collector-Emitter Voltage	2SA1306	-160	V
		2SA1306A	-180	
		2SA1306B	-200	
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 @ $T_C=25^\circ\text{C}$	20	W	
T_J	Junction Temperature	150	$^\circ\text{C}$	
T_{stg}	Storage Temperature Range	-55~150	$^\circ\text{C}$	



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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	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