

isc Silicon PNP Power Transistor

2SA1006

DESCRIPTION

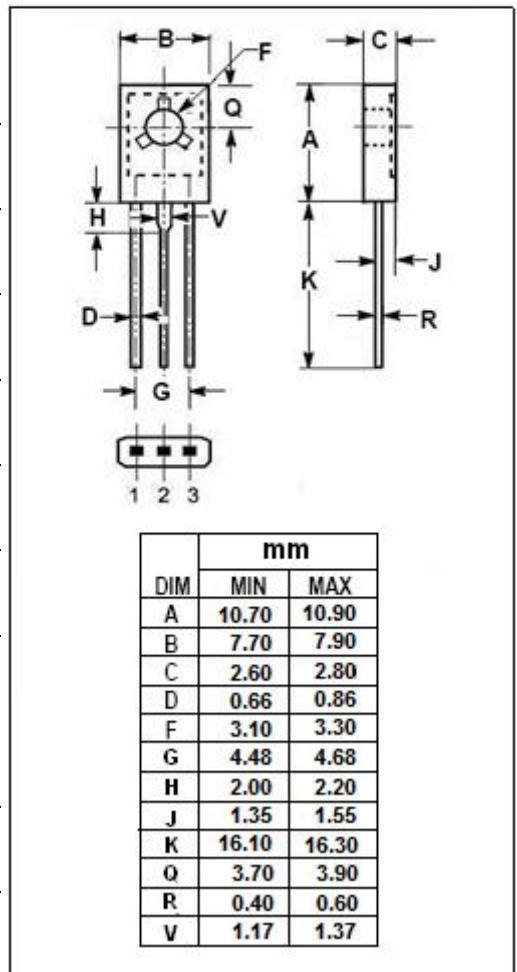
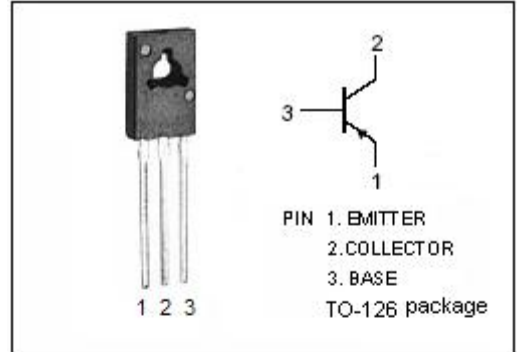
- Good Linearity of  $h_{FE}$
- High Collector-Emitter Breakdown Voltage-  
 $V_{(BR)CEO} = -180V$  (Min)
- Wide Area of Safe Operation
- Complement to Type 2SC2336

APPLICATIONS

- Audio frequency power amplifier
- High frequency power amplifier

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

SYMBOL	PARAMETER	VALUE	UNIT
$V_{CBO}$	Collector-Base Voltage	-180	V
$V_{CEO}$	Collector-Emitter Voltage	-180	V
$V_{EBO}$	Emitter-Base Voltage	-5.0	V
$I_C$	Collector Current-Continuous	-1.5	A
$I_{CM}$	Collector Current-Peak	-3.0	A
$P_C$	Collector Power Dissipation @ $T_a=25^{\circ}C$	1.5	W
	Total Power Dissipation @ $T_C=25^{\circ}C$	25	
$T_J$	Junction Temperature	150	$^{\circ}C$
$T_{stg}$	Storage Temperature Range	-55~150	$^{\circ}C$



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## ELECTRICAL CHARACTERISTICS

 $T_C=25^{\circ}\text{C}$  unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
$V_{CE(sat)}$	Collector-Emitter Saturation Voltage	$I_C = -500\text{mA}; I_B = -50\text{mA}$			-1.0	V
$V_{BE(sat)}$	Base-Emitter Saturation Voltage	$I_C = -500\text{mA}; I_B = -50\text{mA}$			-1.5	V
$I_{CBO}$	Collector Cutoff Current	$V_{CB} = -150\text{V}; I_E = 0$			-1.0	$\mu\text{A}$
$I_{EBO}$	Emitter Cutoff Current	$V_{EB} = -3.0\text{V}; I_C = 0$			-1.0	$\mu\text{A}$
$h_{FE-1}$	DC Current Gain	$I_C = -5\text{mA}; V_{CE} = -5\text{V}$	30			
$h_{FE-2}$	DC Current Gain	$I_C = -150\text{mA}; V_{CE} = -5\text{V}$	60		320	
$f_T$	Current-Gain—Bandwidth Product	$I_C = -100\text{mA}; V_{CE} = -10\text{V}$		80		MHz
$C_{OB}$	Output Capacitance	$I_E = 0; V_{CB} = -10\text{V}; f = 1.0\text{MHz}$		45		pF

◆  $h_{FE-2}$  Classifications

R	Q	P
60-120	100-200	160-320

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