

isc Silicon PNP Power Transistor

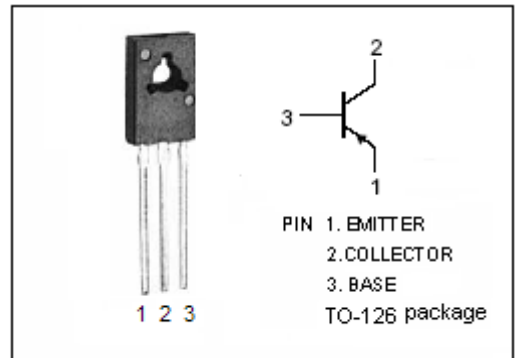
2SA1173

DESCRIPTION

- High Collector-Emitter Breakdown Voltage-  
:  $V_{(BR)CEO} = -140V(\text{Min})$
- Good Linearity of  $h_{FE}$
- Low Saturation Voltage

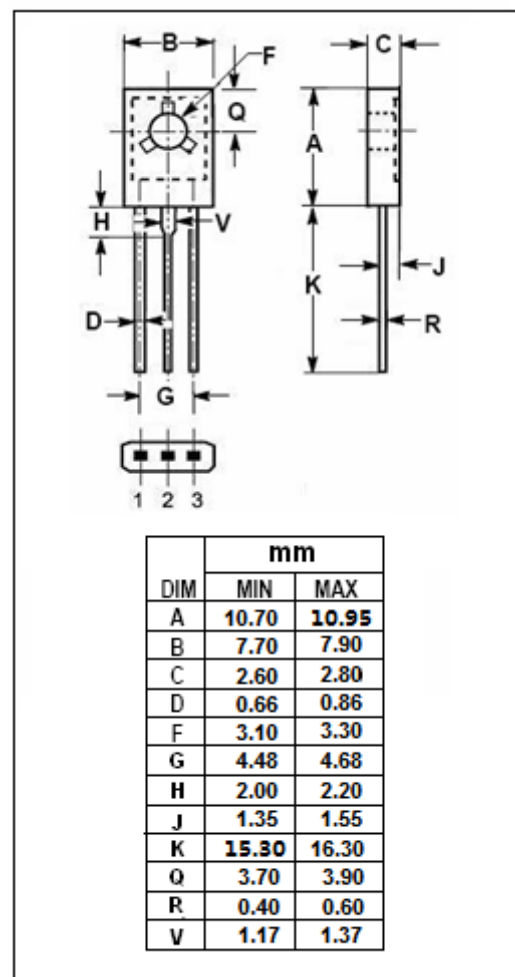
APPLICATIONS

- Power amplifier applications



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

SYMBOL	PARAMETER	VALUE	UNIT
$V_{CBO}$	Collector-Base Voltage	-140	V
$V_{CEO}$	Collector-Emitter Voltage	-140	V
$V_{EBO}$	Emitter-Base Voltage	-5	V
$I_C$	Collector Current-Continuous	-0.05	A
$P_C$	Collector Power Dissipation @ $T_C=25^{\circ}C$	2	W
$T_J$	Junction Temperature	150	$^{\circ}C$
$T_{stg}$	Storage Temperature Range	-55~150	$^{\circ}C$



**isc Silicon PNP Power Transistor****2SA1173****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	$I_C = -20\text{mA}; I_B = -2\text{mA}$			-0.6	V
$V_{BE(sat)}$	Base-Emitter Saturation Voltage	$I_C = -20\text{mA}; I_B = -2\text{mA}$			-1	V
$I_{CBO}$	Collector Cutoff Current	$V_{CB} = -140\text{V}; I_E = 0$			-0.1	$\mu\text{A}$
$I_{EBO}$	Emitter Cutoff Current	$V_{EB} = -4\text{V}; I_C = 0$			-1	$\mu\text{A}$
$h_{FE-1}$	DC Current Gain	$I_C = -10\text{mA}; V_{CE} = -10\text{V}$	90		400	
$f_T$	Current-Gain—Bandwidth Product	$I_C = -10\text{mA}; V_{CE} = -10\text{V}$		80		MHz
$C_{OB}$	Output Capacitance	$I_E = 0; V_{CB} = -10\text{V}, f_{test} = 1\text{MHz}$		2.5		pF