

isc Silicon PNP Power Transistor
2SB1075
DESCRIPTION

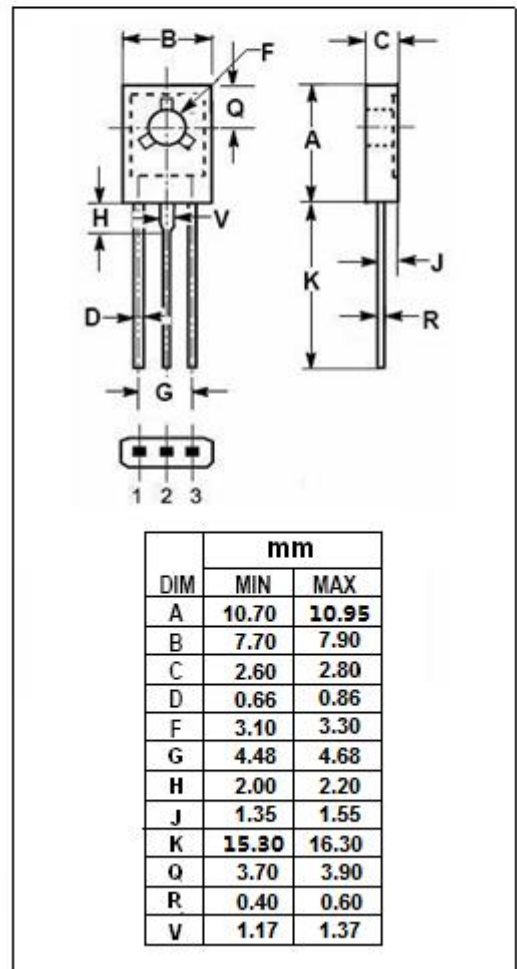
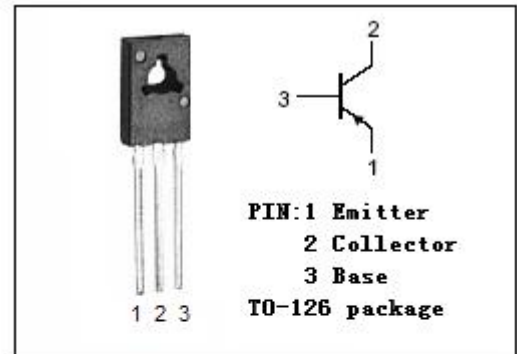
- High Collector Current $-I_C = -2A$
- Collector-Emitter Breakdown Voltage-
: $V_{(BR)CEO} = -40V(\text{Min.})$
- Good Linearity of h_{FE}
- Low Collector Saturation Voltage
: $V_{CE(\text{sat})} = -1.0V(\text{Max.}) @ I_C = -3A$
- Minimum Lot-to-Lot variations for robust device performance and reliable operation


APPLICATIONS

- Designed for AF output amplifier applications.

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

SYMBOL	PARAMETER	VALUE	UNIT
V_{CBO}	Collector-Base Voltage	-50	V
V_{CEO}	Collector-Emitter Voltage	-40	V
V_{EBO}	Emitter-Base Voltage	-5	V
I_C	Collector Current-Continuous	-2	A
I_{CP}	Collector Current-Pulse	-4	A
P_C	Collector Power Dissipation @ $T_a = 25^\circ\text{C}$	1.2	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
$V_{(BR)CBO}$	Collector-Base Breakdown Voltage	$I_C = -1\text{mA}; I_E = 0$	-50			V
$V_{(BR)CEO}$	Collector-Emitter Breakdown Voltage	$I_C = -2\text{mA}; I_B = 0$	-40			V
$V_{CE(sat)}$	Collector-Emitter Saturation Voltage	$I_C = -3\text{A}; I_B = -0.3\text{A}^*$			-1.0	V
$V_{BE(sat)}$	Base-Emitter Saturation Voltage	$I_C = -2\text{A}; I_B = -0.2\text{A}$			-1.5	V
I_{CBO}	Collector Cutoff Current	$V_{CB} = -50\text{V}; I_E = 0$			-1.0	μA
I_{CEO}	Collector Cutoff Current	$V_{CE} = -10\text{V}; I_B = 0$			-100	μA
I_{EBO}	Emitter Cutoff Current	$V_{EB} = -5\text{V}; I_C = 0$			-10	μA
h_{FE}	DC Current Gain	$I_C = -1\text{A}; V_{CE} = -5\text{V}$	50		220	
f_T	Current-Gain—Bandwidth Product	$I_C = -0.5\text{A}; V_{CE} = -5\text{V}$		150		MHz
C_{OB}	Output Capacitance	$I_E = 0; V_{CB} = -20\text{V}, f_{test} = 1\text{MHz}$		40		pF

◆ h_{FE} Classifications

P	Q	R
50-100	80-160	120-220

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