

isc Silicon PNP Darlington Power Transistor
2SB1272
DESCRIPTION

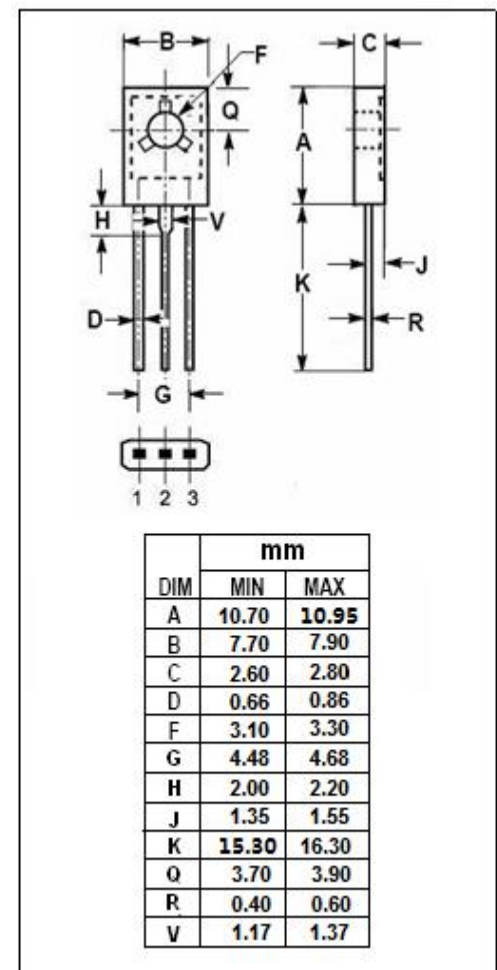
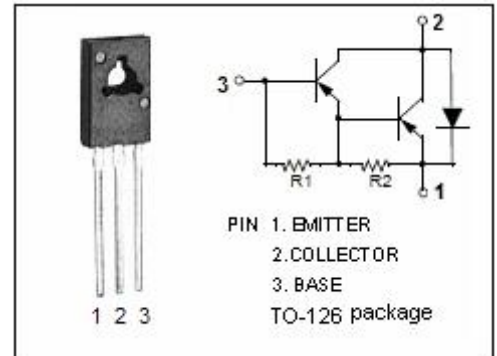
- Collector-Emitter Breakdown Voltage-
: $V_{(BR)CEO} = -100V(\text{Min})$
- High DC Current Gain-
: $h_{FE} = 1000(\text{Min})@ (V_{CE} = -2V, I_C = -1A)$
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

APPLICATIONS

- Designed for low frequency power amplifiers applications.

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

SYMBOL	PARAMETER	VALUE	UNIT
V_{CBO}	Collector-Base Voltage	-100	V
V_{CEO}	Collector-Emitter Voltage	-100	V
V_{EBO}	Emitter-Base Voltage	-7	V
I_C	Collector Current-Continuous	-2	A
I_{CM}	Collector Current-Peak	-5	A
P_C	Collector Power Dissipation @ $T_C = 25^\circ\text{C}$	40	W
T_J	Junction Temperature	150	$^\circ\text{C}$
T_{stg}	Storage Temperature	-55~150	$^\circ\text{C}$



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ELECTRICAL CHARACTERISTICS

 T_j=25°C unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
V _{(BR)CEO}	Collector-Emitter Breakdown Voltage	I _C = -10mA; R _{BE} = ∞	-100			V
V _{(BR)EBO}	Emitter-Base Breakdown Voltage	I _E = -5mA; I _C = 0	-7			V
V _{CE(sat)}	Collector-Emitter Saturation Voltage	I _C = -2A; I _B = -2mA			-2.0	V
V _{BE(sat)}	Base-Emitter Saturation Voltage	I _C = -2A; I _B = -2mA			-2.5	V
I _{CBO}	Collector Cutoff Current	V _{CB} = -100V; I _E = 0			-100	μ A
I _{CEO}	Collector Cutoff Current	V _{CE} = -100V; R _{BE} = ∞			-500	μ A
I _{EBO}	Emitter Cutoff Current	V _{EB} = -7V; I _C = 0			-5.0	mA
h _{FE}	DC Current Gain	I _C = -1A; V _{CE} = -2V	1000		10000	
C _{OB}	Output Capacitance	I _E =0; V _{CB} = -10V; f= 0.1MHz	35			pF

Switching Times

t _{on}	Turn-on Time	I _C = -2A, I _{B1} = -I _{B2} = -2mA		0.5		μ s
t _{stg}	Storage Time			3.0		μ s
t _f	Fall Time			1.0		μ s

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