

isc Silicon PNP Darlington Power Transistor
2SB1390
DESCRIPTION

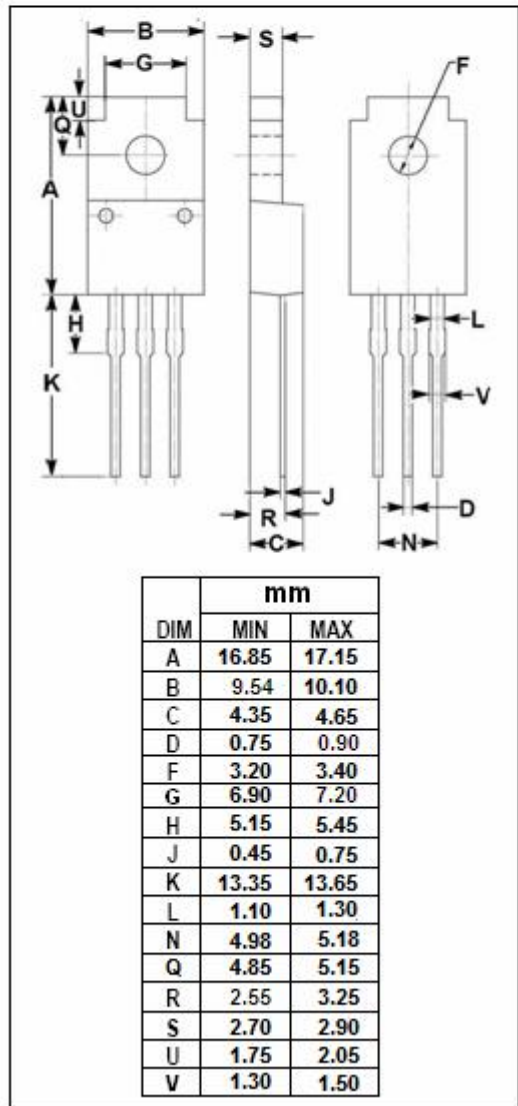
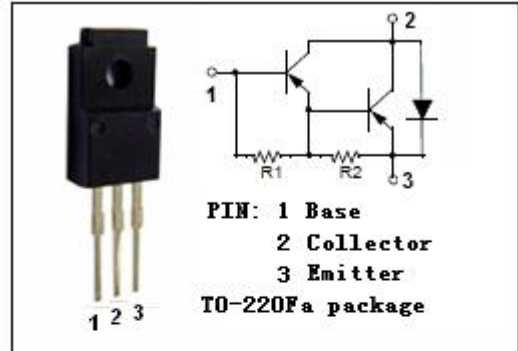
- Collector-Emitter Sustaining Voltage-
: $V_{CEO(SUS)} = -60V(\text{Min})$
- High DC Current Gain-
: $h_{FE} = 1000(\text{Min})@ (V_{CE} = -3V, I_C = -4A)$
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

APPLICATIONS

- Designed for low frequency power amplifier applications.

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

SYMBOL	PARAMETER	VALUE	UNIT
V_{CBO}	Collector-Base Voltage	-60	V
V_{CEO}	Collector-Emitter Voltage	-60	V
V_{EBO}	Emitter-Base Voltage	-7	V
I_C	Collector Current-Continuous	-8	A
I_{CM}	Collector Current-Peak	-12	A
P_C	Collector Power Dissipation @ $T_a=25^\circ\text{C}$	2	W
	Collector Power Dissipation @ $T_c=25^\circ\text{C}$	25	
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 _{CEO(SUS)}	Collector-Emitter Sustaining Voltage	I _C = -25mA; I _B = 0	-60			V
V _{(BR)EBO}	Emitter-Base Breakdown Voltage	I _E = -5mA; I _C = 0	-7			V
V _{(BR)CBO}	Collector-Base breakdown voltage	I _C =-0.1mA; I _E = 0	-60			V
V _{CE(sat) -1}	Collector-Emitter Saturation Voltage	I _C = -4A; I _B = -8mA			-1.5	V
V _{CE(sat) -2}	Collector-Emitter Saturation Voltage	I _C = -8A; I _B = -80mA			-3.0	V
V _{BE(sat)-1}	Base-Emitter Saturation Voltage	I _C = -4A; I _B = -8mA			-2.0	V
V _{BE(sat) -2}	Base-Emitter Saturation Voltage	I _C = -8A; I _B = -80mA			-3.5	V
I _{CBO}	Collector Cutoff Current	V _{CB} = -50V; I _E = 0			-10	μ A
I _{CEO}	Collector Cutoff Current	V _{CE} = -50V; I _B = 0			-10	μ A
I _{EBO}	Emitter Cutoff Current	V _{EB} = -7V; I _C = 0			-5	mA
h _{FE}	DC Current Gain	I _C = -4A; V _{CE} = -3V	1000		20000	

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