

isc Silicon PNP Darlington Power Transistor

2SB1098

DESCRIPTION

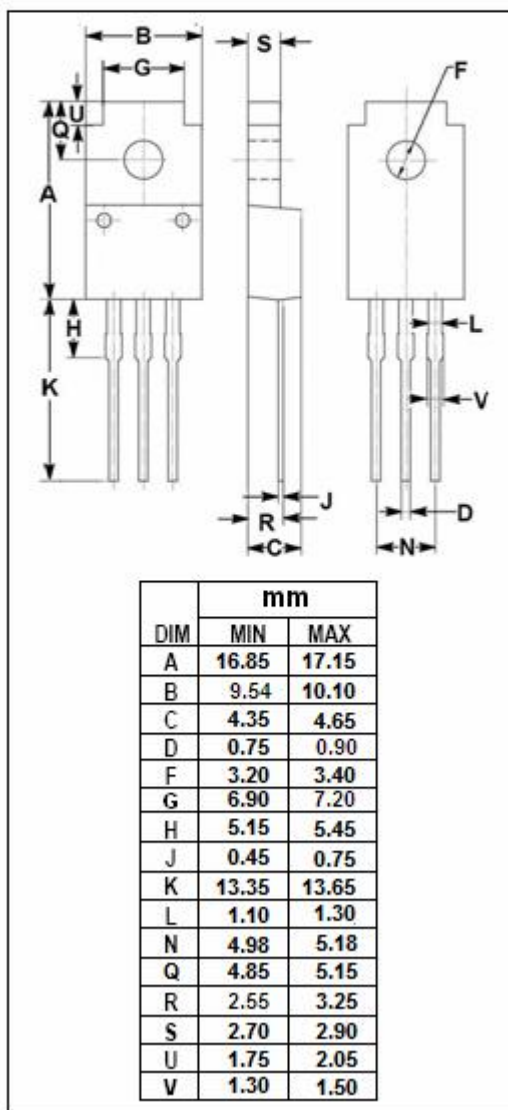
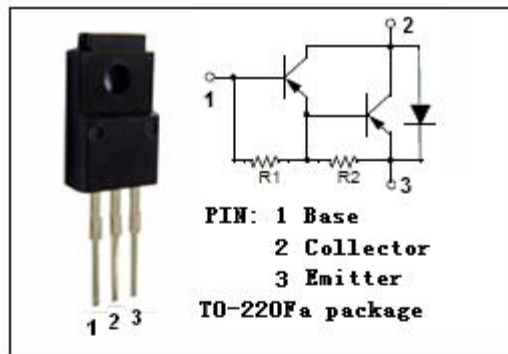
- Collector-Emitter Breakdown Voltage-
: $V_{(BR)CEO} = -100V(\text{Min})$
- High DC Current Gain-
: $h_{FE} = 2000(\text{Min})@ (V_{CE} = -2V, I_C = -3A)$
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

APPLICATIONS

- Low speed switching industrial
- Low frequency power amplifier

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	-5	A
I_{CM}	Collector Current-Peak	-8	A
I_B	Base Current-Continuous	-0.5	A
P_C	Collector Power Dissipation @ $T_a = 25^\circ\text{C}$	2	W
	Collector Power Dissipation @ $T_c = 25^\circ\text{C}$	20	
T_J	Junction Temperature	150	$^\circ\text{C}$
T_{stg}	Storage Temperature	-55~150	$^\circ\text{C}$



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ELECTRICAL CHARACTERISTICS

Tj=25°C unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
$V_{(BR)CEO}$	Collector-Emitter Breakdown Voltage	$I_C = -10mA; I_B = 0$	-100			V
$V_{(BR)CBO}$	Collector-Base Breakdown Voltage	$I_C = -100 \mu A; I_E = 0$	-100			V
$V_{CE(sat)}$	Collector-Emitter Saturation Voltage	$I_C = -3A; I_B = -3mA$			-1.5	V
$V_{BE(sat)}$	Base-Emitter Saturation Voltage	$I_C = -3A; I_B = -3mA$			-2.0	V
I_{CBO}	Collector Cutoff Current	$V_{CB} = -100V; I_E = 0$			-10	μA
I_{EBO}	Emitter Cutoff Current	$V_{EB} = -5V; I_C = 0$			-3	mA
h_{FE-1}	DC Current Gain	$I_C = -3A; V_{CE} = -2V$	2000		15000	
h_{FE-2}	DC Current Gain	$I_C = -5A; V_{CE} = -2V$	500			

◆ h_{FE-1} Classifications

R	O	Y
2000-5000	3000-7000	5000-15000

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