

isc Silicon NPN Darlington Power Transistor

2SD1124

DESCRIPTION

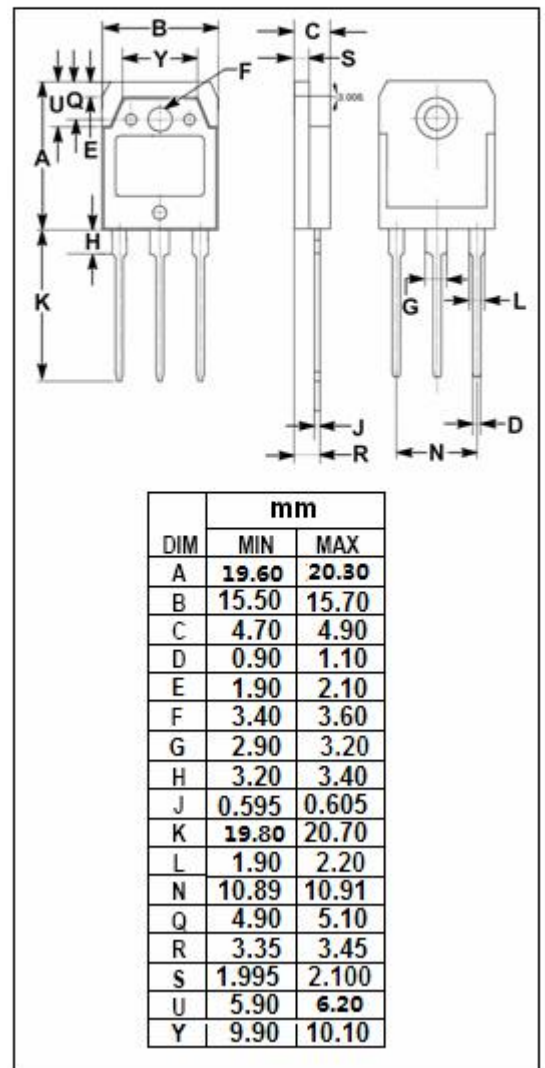
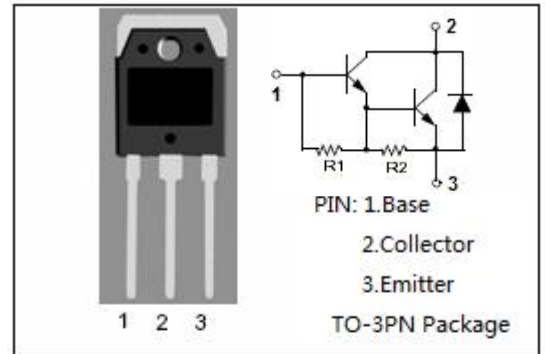
- Collector-Emitter Sustaining Voltage-
: $V_{CEO(SUS)} = 80V(\text{Min})$
- High DC Current Gain
: $h_{FE} = 1000(\text{Min}) @ I_C = 1A$
- 100% avalanche tested
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

APPLICATIONS

- Designed for general-purpose amplifier and low-speed switching applications

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

SYMBOL	PARAMETER	VALUE	UNIT
V_{CBO}	Collector-Base Voltage	80	V
V_{CEO}	Collector-Emitter Voltage	80	V
V_{EBO}	Emitter-Base Voltage	6	V
I_C	Collector Current-Continuous	8	A
I_{CM}	Collector Current-Peak	12	A
P_C	Collector Power Dissipation @ $T_C = 25^\circ\text{C}$	80	W
T_J	Junction Temperature	150	$^\circ\text{C}$
T_{stg}	Storage Temperature Range	-55~150	$^\circ\text{C}$



isc Silicon NPN Darlington Power Transistor**2SD1124****ELECTRICAL CHARACTERISTICS****T_c=25°C unless otherwise specified**

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
V _{(BR)EBO}	Emitter-Base Breakdown Voltage	I _E = 5mA; I _C = 0	6			V
V _{(BR)CBO}	Collector - Base Breakdown Voltage	I _C = 0.1mA; I _E = 0	80			V
V _{CEQ(SUS)}	Collector-Emitter Sustaining Voltage	I _C = 30mA; I _B = 0	80			V
V _{CE(sat)-1}	Collector-Emitter Saturation Voltage	I _C = 4A; I _B = 16mA			2.0	V
V _{CE(sat)-2}	Collector-Emitter Saturation Voltage	I _C = 6A, I _B = 30mA			3.0	V
V _{BE(on)}	Base-Emitter On Voltage	I _C = 4A; V _{CE} = 4V			2.5	V
I _{CEO}	Collector Cutoff Current	V _{CE} = 80V; I _B = 0			0.1	mA
I _{CBO}	Collector Cutoff Current	V _{CB} = 80V; I _E = 0			0.1	mA
I _{EBO}	Emitter Cutoff Current	V _{EB} = 5V; I _C = 0			5.0	mA
h _{FE -1}	DC Current Gain	I _C = 1A; V _{CE} = 4V	1000			
h _{FE -2}	DC Current Gain	I _C = 4A; V _{CE} = 4V	500			

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