

isc Silicon NPN Darlington Power Transistor
2SD1982
DESCRIPTION

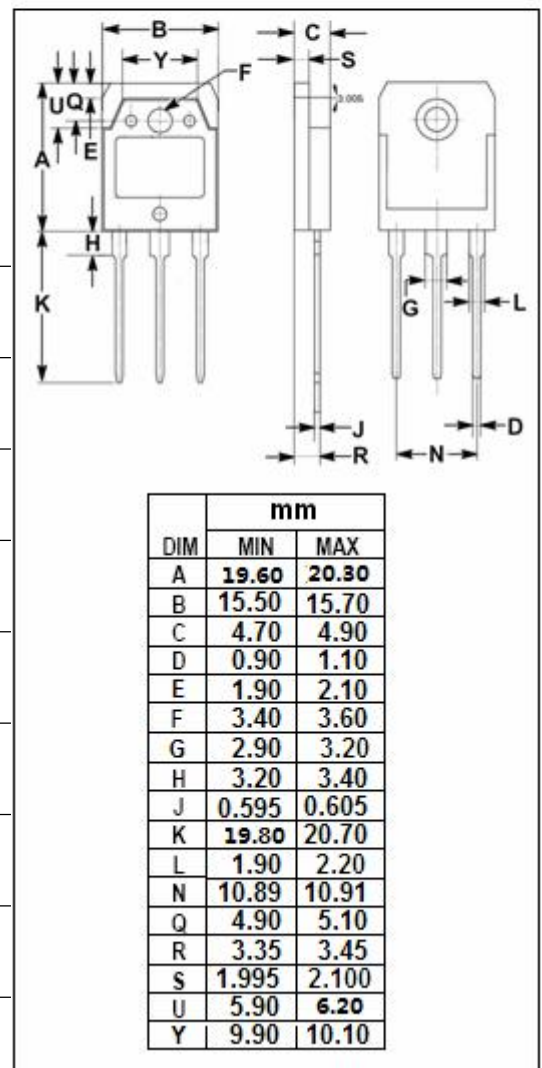
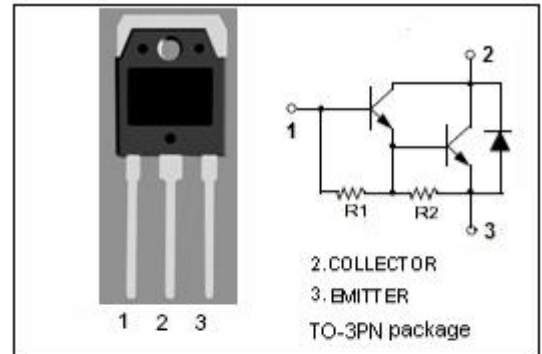
- Collector-Emitter Breakdown Voltage-
: $V_{(BR)CEO} = 300V(\text{Min})$
- Low Collector Saturation Voltage
- High DC Current Gain
- 100% avalanche tested
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

APPLICATIONS

- Switching regulator
- General purpose power amplifiers

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

SYMBOL	PARAMETER	VALUE	UNIT
V_{CBO}	Collector-Base Voltage	300	V
V_{CEO}	Collector-Emitter Voltage	300	V
V_{EBO}	Emitter-Base Voltage	5	V
I_C	Collector Current-Continuous	6	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	$^\circ\text{C}$



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ELECTRICAL CHARACTERISTICS

T_c=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	300			V
V _{(BR)CBO}	Collector-Base Breakdown Voltage	I _C =1mA; I _E = 0	300			V
V _{(BR)EBO}	Emitter-Base Breakdown Voltage	I _E = 5mA; I _C = 0	5			V
V _{CE(sat)-1}	Collector-Emitter Saturation Voltage	I _C = 4A; I _B = 16mA			1.8	V
V _{CE(sat)-2}	Collector-Emitter Saturation Voltage	I _C =6A; I _B = 24mA			2.0	V
V _{BE(sat)-1}	Base-Emitter Saturation Voltage	I _C = 4A; I _B = 16mA			2.0	V
V _{BE(sat)-2}	Base-Emitter Saturation Voltage	I _C =6A; I _B = 24mA			2.5	V
I _{CBO}	Collector Cutoff Current	V _{CB} = 300V; I _E = 0			100	μ A
I _{EBO}	Emitter Cutoff Current	V _{EB} = 5V; I _C = 0			5.0	mA
h _{FE}	DC Current Gain	I _B = 4A; V _{CE} = 2V	2000			

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