

isc Silicon NPN Darlington Power Transistor

2SD108

DESCRIPTION

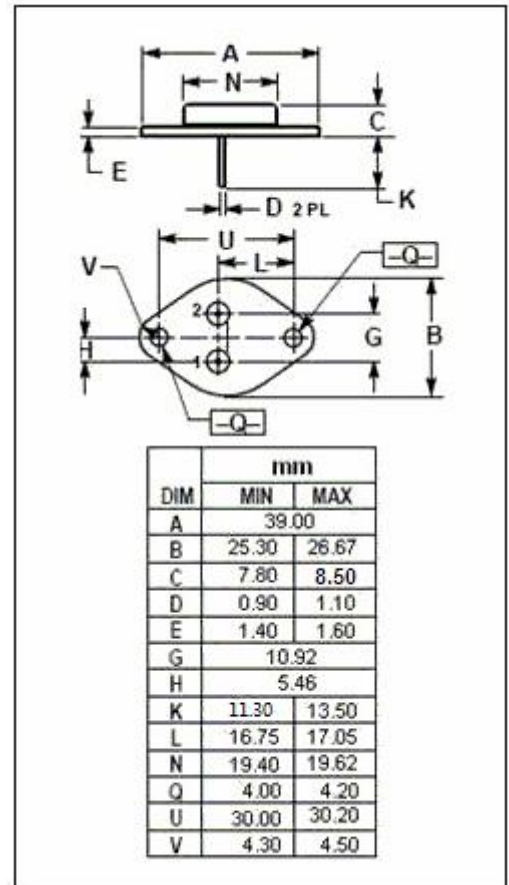
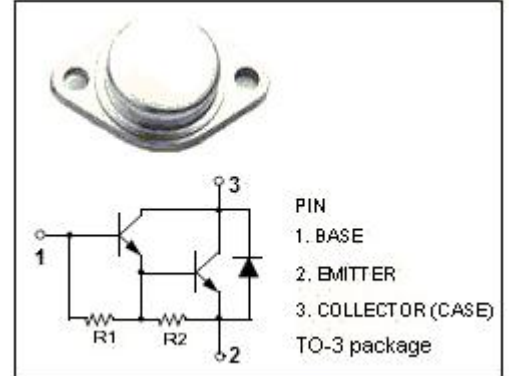
- High DC current gain-
: $h_{FE} = 2000$ (Min) @ $I_C = 1A$
- Collector-Emitter Sustaining Voltage-
: $V_{CEO(SUS)} = 80V$ (Min)
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

APPLICATIONS

- Power switching
- Hammer drivers
- Series and shunt regulator
- Audio amplifiers

ABSOLUTE MAXIMUM RATINGS($T_C = 25^\circ C$)

SYMBOL	PARAMETER	VALUE	UNIT
V_{CBO}	Collector-Base Voltage	80	V
V_{CEO}	Collector-Emitter Voltage	80	V
V_{EBO}	Emitter-Base Voltage	10	V
I_C	Collector Current -Continuous	5	A
I_{CP}	Collector Current-Peak	10	A
I_B	Base Current	0.12	A
P_C	Collector Power Dissipation@ $T_C = 25^\circ C$	50	W
T_j	Junction Temperature	150	$^\circ C$
T_{stg}	Storage Temperature	-65~150	$^\circ C$



isc Silicon NPN Darlington Power Transistor**2SD108****ELECTRICAL CHARACTERISTICS****T_C=25°C unless otherwise specified**

SYMBOL	PARAMETER	CONDITIONS	MIN	MAX	UNIT
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 = 3A; I _B = 12mA		2.0	V
V _{CE(sat)-2}	Collector-Emitter Saturation Voltage	I _C = 5A; I _B = 20mA		4.0	V
V _{BE(sat)-1}	Base-Emitter Saturation voltage	I _C = 3A; I _B = 12mA		3.0	V
V _{BE(sat)-2}	Base-Emitter Saturation voltage	I _C = 5A; I _B = 20mA		4.5	V
I _{CEO}	Collector Cutoff current	V _{CE} = 80V; I _B =0		1.0	mA
I _{CBO}	Collector Cutoff current	V _{CB} = 80V; I _E =0		0.5	mA
I _{EBO}	Emitter Cut-off current	V _{EB} = 7V; I _C = 0		5	mA
h _{FE-1}	DC Current Gain	I _C = 1A; V _{CE} = 5V	2000		
h _{FE-2}	DC Current Gain	I _C = 5A; V _{CE} = 5V	750		

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