

isc Silicon NPN Power Transistor
2SD311
DESCRIPTION

- High Collector-Emitter Sustaining Voltage-
: $V_{CEO(SUS)} = 400V$ (Min)
- High Switching Speed
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

APPLICATIONS

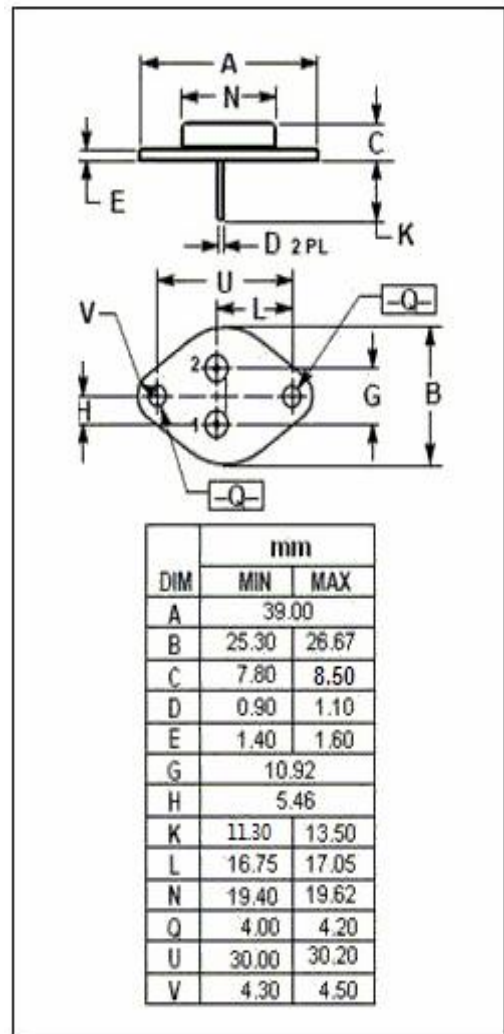
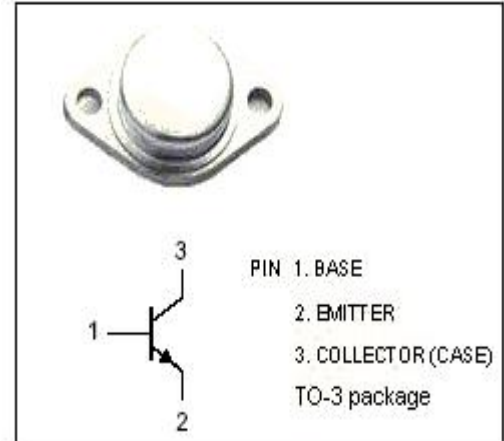
- Power switching
- Power amplification
- Power driver

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

SYMBOL	PARAMETER	MAX	UNIT
V_{CBO}	Collector-Base Voltage	800	V
V_{CEO}	Collector-Emitter Voltage	400	V
V_{EBO}	Emitter-Base Voltage	5	V
I_C	Collector Current-Continuous	15	A
I_B	Base Current-Continuous	6	A
P_C	Collector Power Dissipation @ $T_c = 25^\circ C$	150	W
T_j	Junction Temperature	150	$^\circ C$
T_{stg}	Storage Temperature Range	-65~150	$^\circ C$

THERMAL CHARACTERISTICS

SYMBOL	PARAMETER	MAX	UNIT
R_{th-jc}	Thermal Resistance, Junction to Case	1.0	$^\circ C/W$



isc Silicon NPN Power Transistor**2SD311****ELECTRICAL CHARACTERISTICS****T_c=25°C unless otherwise specified**

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
V _{CE(SUS)}	Collector-Emitter Sustaining Voltage	I _c = 50mA; I _b =0	400			V
V _{CE(sat)}	Collector-Emitter Saturation Voltage	I _c = 6A; I _B = 1.2A			1.2	V
V _{BE(sat)}	Base-Emitter Saturation Voltage	I _c = 6A; I _B = 1.2A			1.5	V
h _{FE}	DC Current Gain	I _c =7.5A; V _{CE} = 5V	30		60	
I _{CBO}	Collector Cutoff Current	V _{CB} = 750V; I _E = 0			1.0	mA
I _{CEO}	Collector Cutoff Current	V _{CE} = 400V; I _B = 0			5.0	mA
I _{EBO}	Emitter Cutoff Current	V _{EB} = 5V; I _c = 0			1.0	mA

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