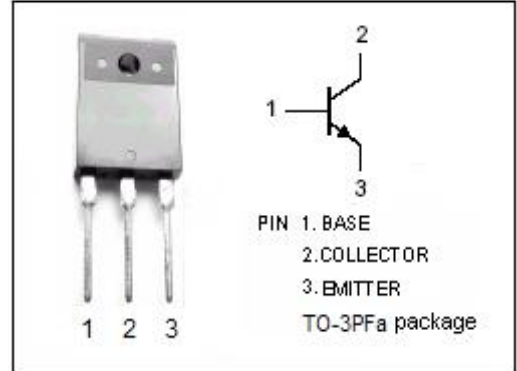


isc Silicon NPN Power Transistor
2SD1680
DESCRIPTION

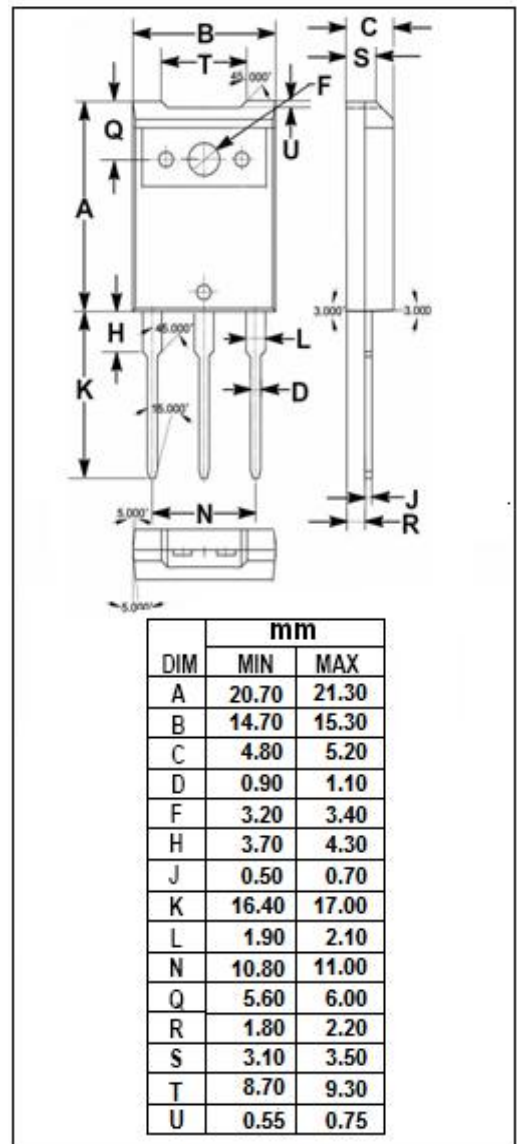
- Collector-Base Breakdown Voltage-
: $V_{(BR)CBO} = 330V(\text{Min})$
- High Power Dissipation
- High Speed Switching
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

APPLICATIONS

- Designed for horizontal deflection output applications.


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

SYMBOL	PARAMETER	VALUE	UNIT
V_{CBO}	Collector-Base Voltage	330	V
V_{CES}	Collector-Emitter Voltage	330	V
V_{CEO}	Collector-Emitter Voltage	200	V
V_{EBO}	Emitter-Base Voltage	6	V
I_C	Collector Current-Continuous	7	A
I_{CP}	Collector Current-Pulse	10	A
I_{CP}	Collector Current-Pulse (unrepetitive)	15	A
P_C	Collector Power Dissipation @ $T_c=25^\circ\text{C}$	70	W
T_J	Junction Temperature	150	$^\circ\text{C}$
T_{stg}	Storage Temperature	-55~150	$^\circ\text{C}$



isc Silicon NPN Power Transistor

2SD1680

ELECTRICAL CHARACTERISTICS

T_j=25°C unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	MAX	UNIT
V _{(BR)CEO}	Collector-Emitter Breakdown Voltage	I _C = 30mA; I _B = 0	200		V
V _{CE(sat)}	Collector-Emitter Saturation Voltage	I _C = 5A; I _B = 0.5A		1.0	V
V _{BE(sat)}	Base-Emitter Saturation Voltage	I _C = 5A; I _B = 0.5A		1.2	V
I _{CES}	Collector Cutoff Current	V _{CE} = 330V; V _{BE} = 0; V _{CE} = 300V; V _{BE} = 0; T _a = 100°C		0.1 1.0	mA
I _{EBO}	Emitter Cutoff Current	V _{EB} = 6V; I _C = 0		1.0	mA
h _{FE}	DC Current Gain	I _C = 5A; V _{CE} = 4V	15	45	
t _f	Fall Time	I _C = 5A; I _{B1} = 0.8A; V _{EB} = -5V, R _B =0.5 Ω		0.75	μ s

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