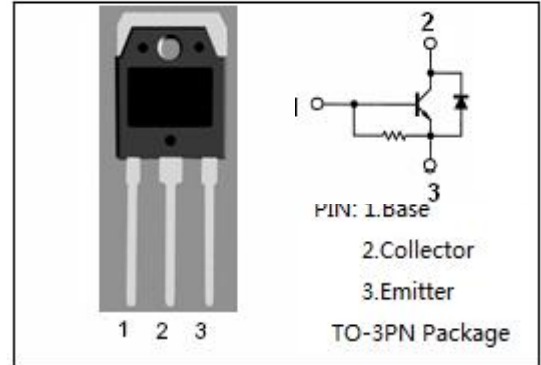


isc Silicon NPN Power Transistor
2SD1396
DESCRIPTION

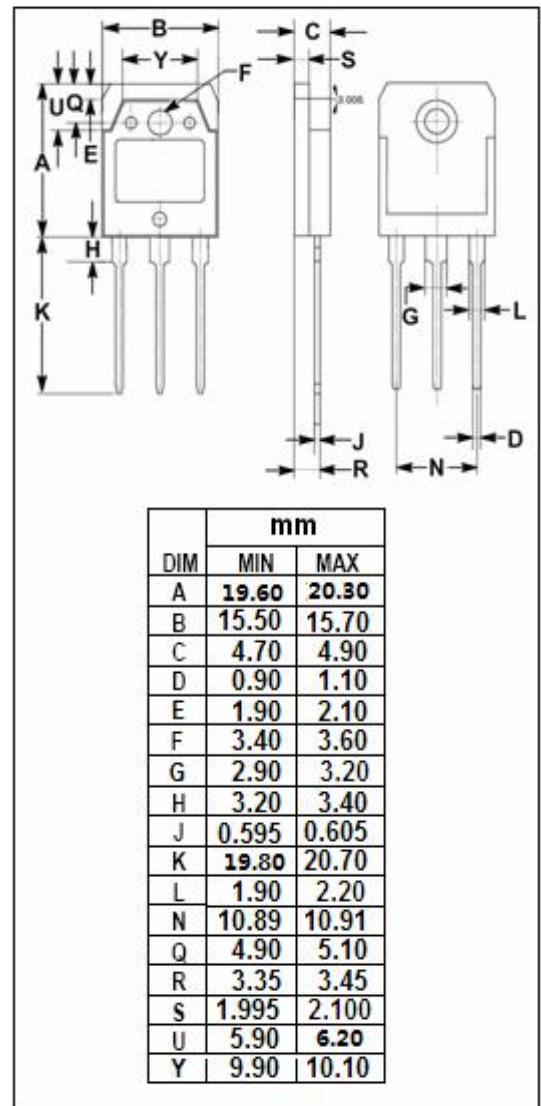
- High Breakdown Voltage-
: $V_{CBO} = 1500V$ (Min)
- High Switching Speed
- Built-in Damper Diode
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

APPLICATIONS

- Designed for horizontal output applications.


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

SYMBOL	PARAMETER	VALUE	UNIT
V_{CBO}	Collector-Base Voltage	1500	V
V_{CEO}	Collector-Emitter Voltage	800	V
V_{EBO}	Emitter-Base Voltage	7	V
I_C	Collector Current- Continuous	2.5	A
I_{CP}	Collector Current-Pulse	10	A
P_C	Collector Power Dissipation @ $T_C = 25^\circ C$	50	W
T_J	Junction Temperature	150	$^\circ C$
T_{stg}	Storage Temperature Range	-55~150	$^\circ C$



isc Silicon NPN Power Transistor

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ELECTRICAL CHARACTERISTICS

T_c=25°C unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
V _{(BR)CBO}	Collector-Base Breakdown Voltage	I _C = 1mA; I _E = 0	1500			V
V _{(BR)CEO}	Collector-Emitter Breakdown Voltage	I _C = 30mA; R _{BE} = ∞	800			V
V _{(BR)EBO}	Emitter-Base Breakdown Voltage	I _E = 200mA; I _C = 0	7			V
V _{CE(sat)}	Collector-Emitter Saturation Voltage	I _C = 2A; I _B = 0.6A			8.0	V
V _{BE(sat)}	Base-Emitter Saturation Voltage	I _C = 2A; I _B = 0.6A			1.5	V
I _{CBO}	Collector Cutoff Current	V _{CB} = 800V; I _E = 0			10	μ A
I _{EBO}	Emitter Cutoff Current	V _{EB} = 4V; I _C = 0	40		130	mA
h _{FE}	DC Current Gain	I _C = 0.5A; V _{CE} = 5V	8			
f _T	Current-Gain—Bandwidth Product	I _C = 0.5A; V _{CE} = 10V		3		MHz
V _{ECF}	C-E Diode Forward Voltage	I _F = 2.5A			2.0	V
t _f	Fall Time	I _C = 2A, I _{B1} = 0.6A, I _{B2} = 1.2A; R _L = 100Ω; V _{CC} = 200V			0.7	μ s

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