

isc Silicon NPN Power Transistor

2SD1441

DESCRIPTION

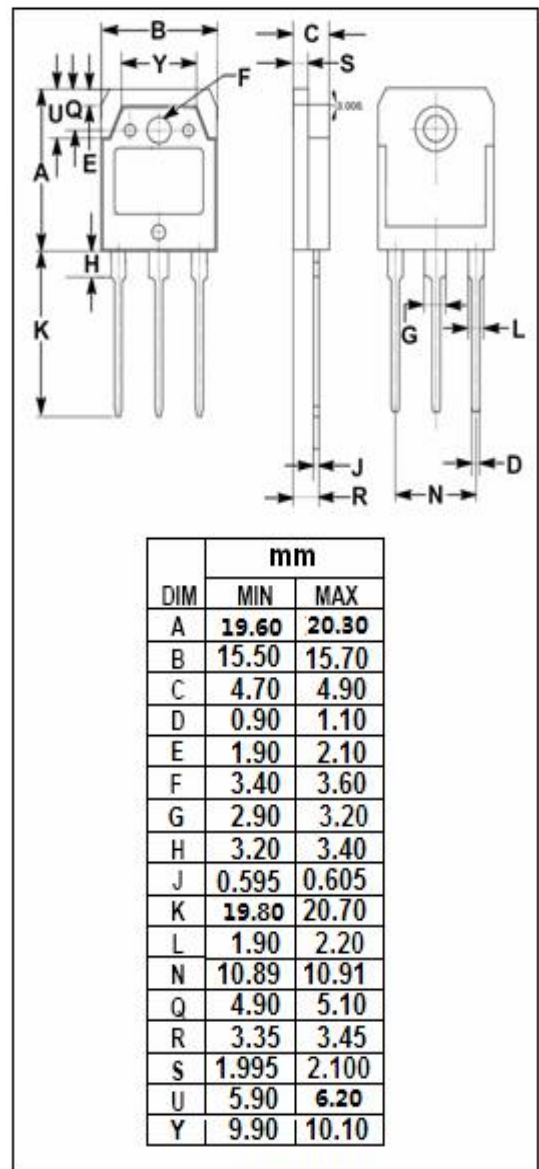
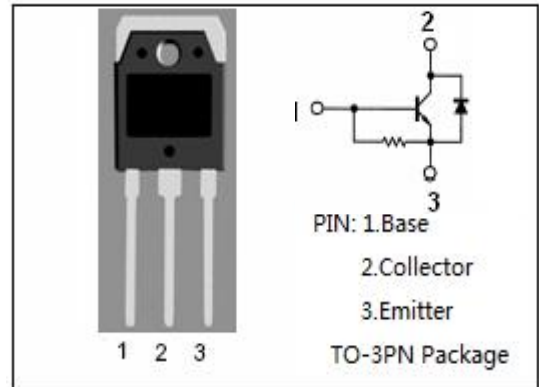
- High Breakdown Voltage-
: $V_{CBO} = 1500V$ (Min)
- High Switching Speed
- Built-in Damper Diode
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

APPLICATIONS

- Designed for horizontal deflection output applications.

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

SYMBOL	PARAMETER	VALUE	UNIT
V_{CBO}	Collector-Base Voltage	1500	V
V_{CES}	Collector-Emitter Voltage	1500	V
V_{EBO}	Emitter-Base Voltage	5	V
I_C	Collector Current- Continuous	4	A
I_{CP}	Collector Current-Peak	15	A
I_{BP}	Base Current-Peak	3.5	A
P_C	Collector Power Dissipation @ $T_a = 25^\circ C$	2.5	W
	Collector Power Dissipation @ $T_c = 25^\circ C$	70	
T_J	Junction Temperature	130	$^\circ C$
T_{stg}	Storage Temperature Range	-55~130	$^\circ C$



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ELECTRICAL CHARACTERISTICS

T_c=25°C unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
V _{(BR)EBO}	Emitter-Base Breakdown Voltage	I _E = 200mA; I _C = 0	5			V
V _{CE(sat)}	Collector-Emitter Saturation Voltage	I _C = 3A; I _B = 1A			1.0	V
V _{BE(sat)}	Base-Emitter Saturation Voltage	I _C = 3A; I _B = 1A			1.5	V
I _{CBO}	Collector Cutoff Current	V _{CB} = 750V; I _E = 0 V _{CB} = 1500V; I _E = 0			50 1.0	μ A mA
h _{FE}	DC Current Gain	I _C = 3A; V _{CE} = 10V	5		15	
f _T	Current-Gain—Bandwidth Product	I _C = 0.5A; V _{CE} = 10V		2		MHz
V _{ECF}	C-E Diode Forward Voltage	I _F = 4A			2.2	V
t _s	Storage Time	I _C = 3A, I _{Bend} = 1A, I _{Leak} = 5 μ H			9.0	μ s
t _f	Fall Time				0.75	μ s

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