

isc Silicon NPN Power Transistor
2SD1439
DESCRIPTION

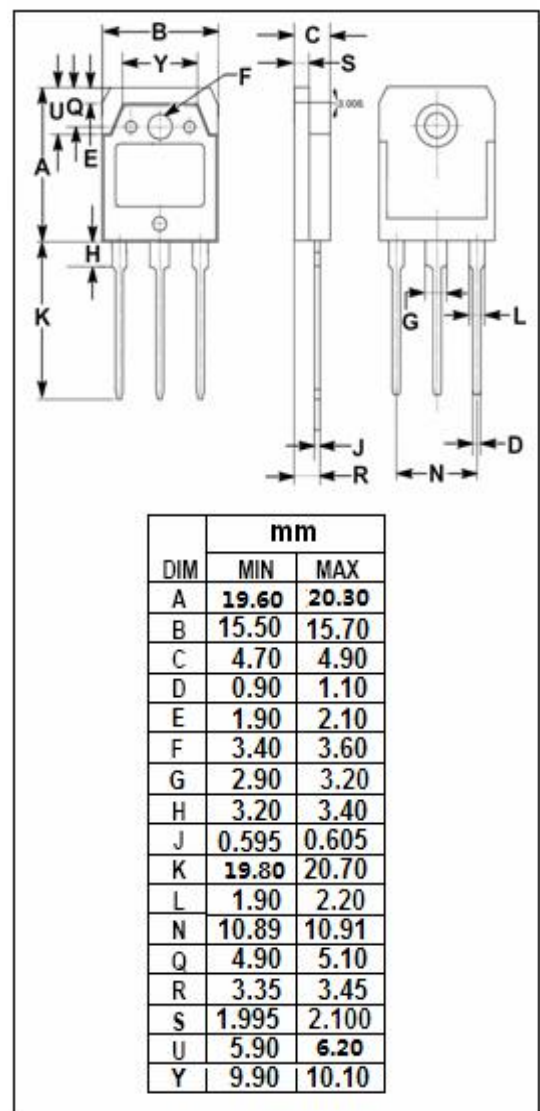
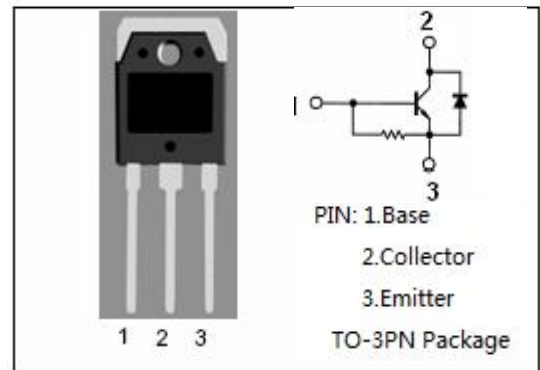
- High Voltage
- High Switching Speed
- Built-in damper diode
- Wide Area of Safe Operation
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

APPLICATIONS

- Designed for use in horizontal deflection circuits of colour TV receivers.

ABSOLUTE MAXIMUM RATINGS (T_a=25°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	3	A
I _{CP}	Collector Current-Peak	10	A
I _{BP}	Base Current- Peak	3.5	A
P _C	Collector Power Dissipation @T _c =25°C	50	W
	Collector Power Dissipation @T _a =25°C	2.5	
T _J	Junction Temperature	130	°C
T _{stg}	Storage Temperature Range	-55-130	°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 = 2A; I _B = 0.75A			5.0	V
V _{BE(sat)}	Base-Emitter Saturation Voltage	I _C = 2A; I _B = 0.75A			1.5	V
h _{FE}	DC Current Gain	I _C = 2A; V _{CE} = 10V	4		12	
I _{CBO}	Collector Cutoff Current	V _{CB} = 750V; I _E = 0			50	μA
		V _{CB} = 1500V; I _E = 0			1.0	mA
V _{ECF}	C-E Diode Forward Voltage	I _F = 2A			2.2	V
f _T	Transition Frequency	I _C = 0.5A; V _{CE} = 10V		2		MHz

Switching Times

t _s	Storage Time	I _C = 2A; I _B = 0.75A; L _{leak} = 5 μH			7	μs
t _f	Fall Time				0.75	μs

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