

isc Silicon NPN Power Transistor

2SD1398

DESCRIPTION

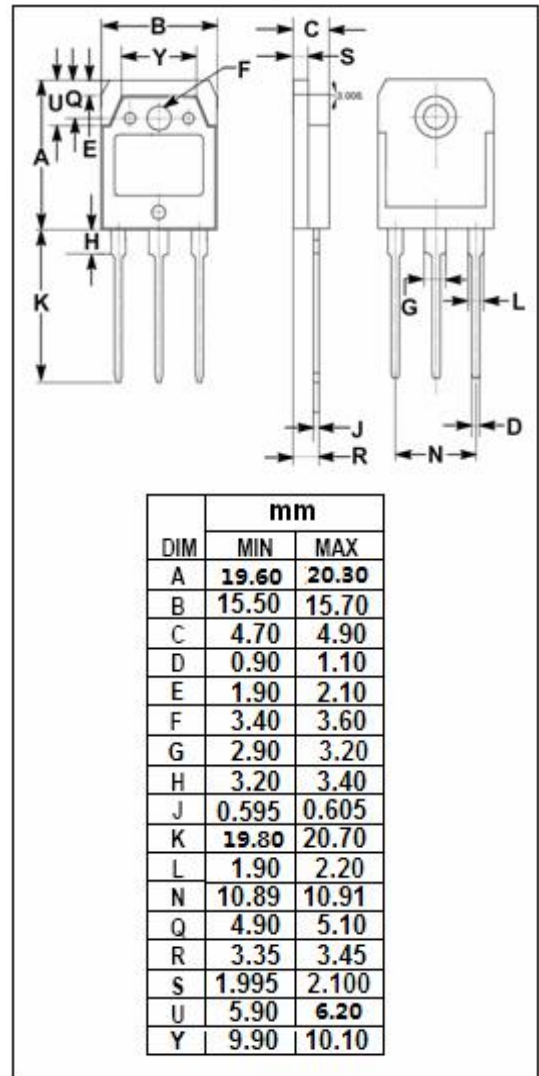
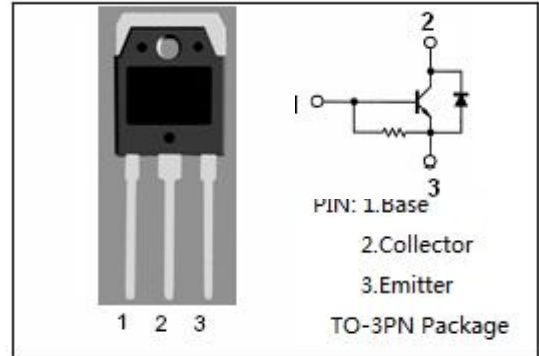
- High Breakdown Voltage
- High Switching Speed
- Built-in damper diode
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

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 _{CEO}	Collector-Emitter Voltage	800	V
V _{EBO}	Emitter-Base Voltage	7	V
I _C	Collector Current-Continuous	5	A
I _{CM}	Collector Current-Peak	16	A
P _C	Collector Power Dissipation @T _c =25°C	50	W
T _J	Junction Temperature	150	°C
T _{stg}	Storage Temperature Range	-55-150	°C



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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 = 4A; I _B = 0.8A			5.0	V
V _{BE(sat)}	Base-Emitter Saturation Voltage	I _C = 4A; I _B = 0.8A			1.5	V
h _{FE}	DC Current Gain	I _C = 1A; V _{CE} = 5V	8			
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
f _T	Transition Frequency	I _C = 1A; V _{CE} = 10V		3		MHz
V _{ECF}	C-E Diode Forward Voltage	I _F = 5A			2.0	V
t _f	Fall Time	I _C = 4A; I _{B1} = 0.8A; I _{B2} = 1.6A; L _B =10 μ H			0.7	μ s

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