

isc Silicon NPN Power Transistor

2SD1371

DESCRIPTION

- High Voltage
- High Speed Switching
- High Power Dissipation
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

APPLICATIONS

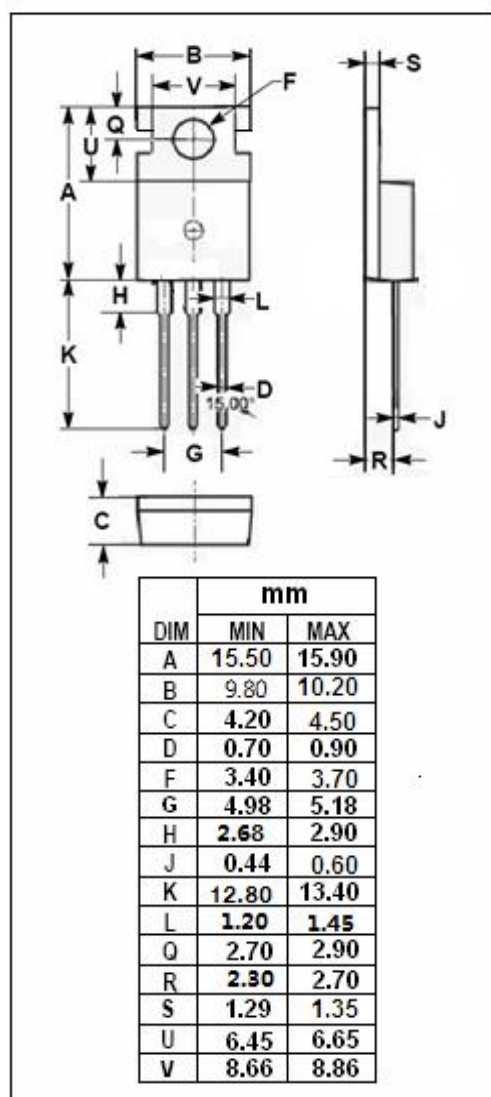
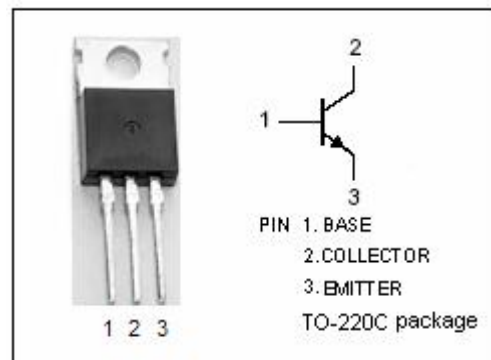
- Designed for switching mode power supply and electronic ballast applications.

ABSOLUTE MAXIMUM RATINGS (T_a=25°C)

SYMBOL	PARAMETER	VALUE	UNIT
V _{CBO}	Collector-Base Voltage	300	V
V _{CEO}	Collector-Emitter Voltage	300	V
V _{EBO}	Emitter-Base Voltage	7	V
I _C	Collector Current-Continuous	2	A
P _C	Collector Power Dissipation @T _C =25°C	40	W
T _J	Junction Temperature	150	°C
T _{stg}	Storage Temperature Range	-55~150	°C

THERMAL CHARACTERISTICS

SYMBOL	PARAMETER	MAX	UNIT
R _{th j-c}	Thermal Resistance, Junction to Case	2.5	°C/W



isc Silicon NPN Power Transistor**2SD1371****ELECTRICAL CHARACTERISTICS****T_C=25°C unless otherwise specified**

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
V _{(BR)CEO}	Collector-Emitter Breakdown Voltage	I _C = 30mA; I _B = 0	300			V
V _{(BR)EBO}	Emitter-Base Breakdown Voltage	I _E = 1mA; I _C = 0	7			V
V _{CE(sat)}	Collector-Emitter Saturation Voltage	I _C = 1A; I _B = 0.2A			1.0	V
V _{BE(sat)}	Base-Emitter Saturation Voltage	I _C = 1A; I _B = 0.2A			1.5	V
I _{EBO}	Emitter Cutoff Current	V _{EB} = 7V; I _C = 0			0.1	mA
I _{CBO}	Collector Cutoff Current	V _{CB} = 300V; V _{BE} = 0			100	μA
h _{FE}	DC Current Gain	I _C = 0.3A; V _{CE} = 5V	35	100		
f _T	Current-Gain—Bandwidth Product	I _C = 0.3A; V _{CE} = 10V	5			MHz

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