

isc Silicon NPN Power Transistor

2SC4336

DESCRIPTION

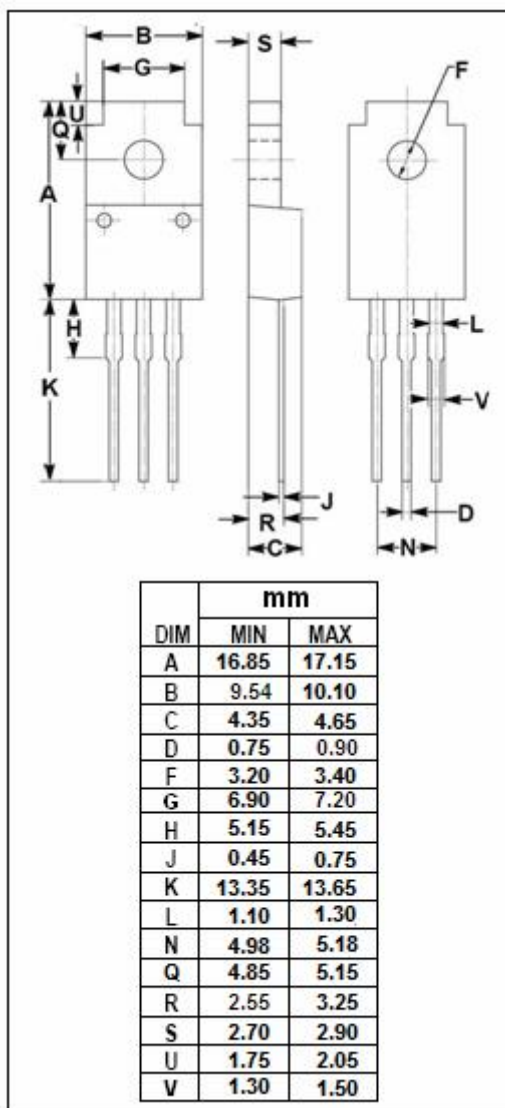
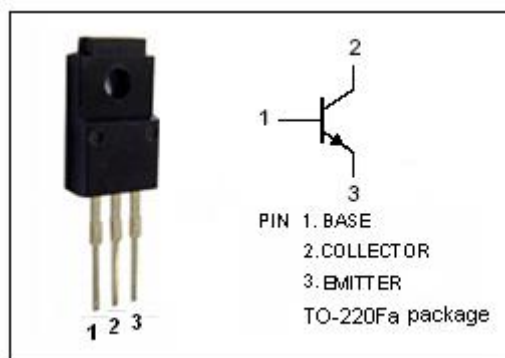
- Mold package that does not require an insulating board or insulation bushing
- High Speed Switching
- 100% avalanche tested
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

APPLICATIONS

- This transistor is ideal for use in switching power supplies, DC/DC converters, motor drivers, solenoid drivers and other low-voltage power supply devices, as well as for high current switching.

ABSOLUTE MAXIMUM RATINGS (T_a=25°C)

SYMBOL	PARAMETER	VALUE	UNIT
V _{CBO}	Collector-Base Voltage	100	V
V _{CEO}	Collector-Emitter Voltage	100	V
V _{EBO}	Emitter-Base Voltage	7	V
I _C	Collector Current-Continuous	10	A
I _{CM}	Collector Current-Peak	20	A
I _B	Base Current-Continuous	6	A
P _C	Collector Power Dissipation @T _a =25°C	2	W
	Collector Power Dissipation @T _c =25°C	30	
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)CEO}	Collector-Emitter Breakdown Voltage	I _C = 25mA; I _B = 0	100			V
V _{CE(sat)} -1	Collector-Emitter Saturation Voltage	I _C =6A; I _B = 300mA			0.3	V
V _{CE(sat)} -2	Collector-Emitter Saturation Voltage	I _C = 8A; I _B = 400mA			0.5	V
V _{BE(sat)} -1	Base-Emitter Saturation Voltage	I _C =6A; I _B = 300mA			1.2	V
V _{BE(sat)} -2	Base-Emitter Saturation Voltage	I _C = 8A; I _B = 400mA			1.5	V
I _{CBO}	Collector Cutoff Current	V _{CB} =100V; I _E = 0			10	μ A
I _{EBO}	Emitter Cutoff Current	V _{EB} = 5V; I _C = 0			10	μ A
h _{FE-1}	DC Current Gain	I _C = 1A; V _{CE} = 2V	100			
h _{FE-2}	DC Current Gain	I _C =2A; V _{CE} = 2V	100		400	
h _{FE-3}	DC Current Gain	I _C =6A; V _{CE} = 2V	60			
f _T	Current-Gain—Bandwidth Product	I _C = 500mA; V _{CE} = 10V; f= 1MHz		150		MHz

Switching Times

t _{on}	Turn-on Time	I _C =6A; I _{B1} = 0.3A; I _{B2} = -0.3A; V _{CC} = 50V			0.3	μ s
t _s	Storage Time				1.5	μ s
t _f	Fall Time				0.3	μ s

◆ h_{FE-2} Classifications

M	L	K
100-200	150-300	200-400

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