

isc Silicon NPN Power Transistor

2SC2335

DESCRIPTION

- Collector-Emitter Sustaining Voltage-
: $V_{CEO(SUS)} = 400V(\text{Min})$
- Collector-Emitter Saturation Voltage-
: $V_{CE(sat)} = 1.0V(\text{Max}) @ I_C = 3A, I_B = 0.6A$
- Fast Switching Speed
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

APPLICATIONS

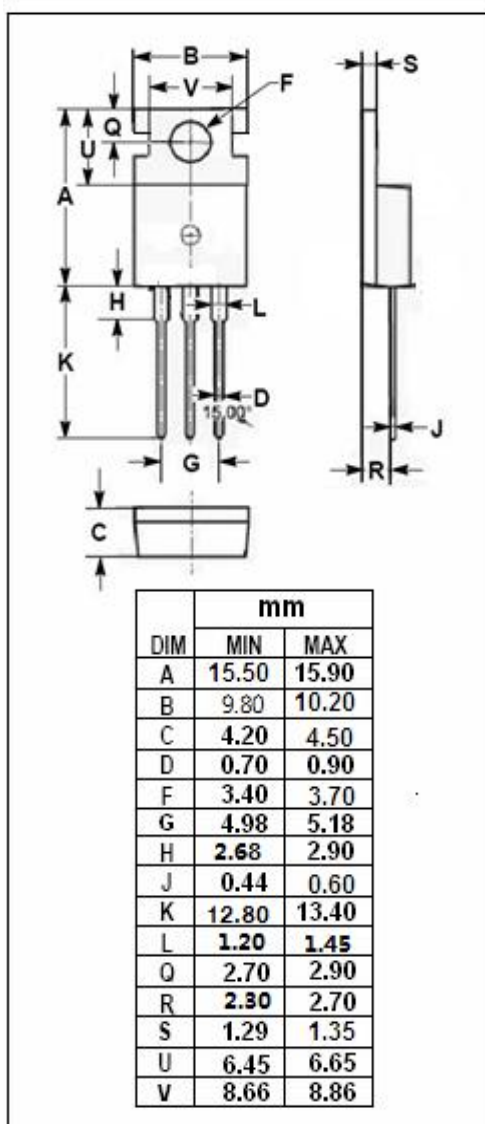
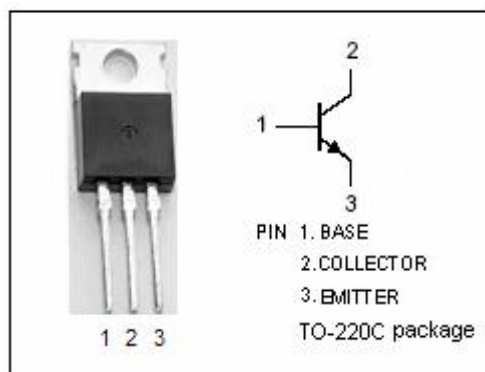
- Designed for use in high-voltage, high-speed switching in Inductive circuit, they are particularly suited for 115 and 220V switchmode applications such as switching regulators, inverters, DC-DC and converter.

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

SYMBOL	PARAMETER	VALUE	UNIT
V_{CBO}	Collector-Base Voltage	500	V
V_{CEO}	Collector-Emitter Voltage	400	V
V_{EBO}	Emitter-Base Voltage	7.0	V
I_C	Collector Current-Continuous	7.0	A
I_{CM}	Collector Current-Peak	15	A
I_B	Base Current-Continuous	3.5	A
P_C	Total Power Dissipation @ $T_C = 25^\circ\text{C}$	40	W
T_J	Junction Temperature	150	$^\circ\text{C}$
T_{stg}	Storage Temperature Range	-55~150	$^\circ\text{C}$

THERMAL CHARACTERISTICS

SYMBOL	PARAMETER	MAX	UNIT
$R_{th\ j-c}$	Thermal Resistance, Junction to Case	3.125	$^\circ\text{C/W}$



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ELECTRICAL CHARACTERISTICS

T_c=25°C unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	MAX	UNIT
V _{CEO(SUS)}	Collector-Emitter Sustaining Voltage	I _C = 50mA, I _B =0	400		V
V _{CE(sat)}	Collector-Emitter Saturation Voltage	I _C = 3A; I _B = 0.6A		1.0	V
V _{BE(sat)}	Base-Emitter Saturation Voltage	I _C = 3A; I _B = 0.6A		1.2	V
I _{CBO}	Collector Cutoff Current	V _{CB} = 400V ; I _E =0		10	μ A
I _{CEX}	Collector Cutoff Current	V _{CE} = 400V; V _{BE(off)} = -1.5V V _{CE} = 400V; V _{BE(off)} = -1.5V, T _a =125°C		10 5.0	μ A mA
I _{EBO}	Emitter Cutoff Current	V _{EB} = 5V; I _C = 0		10	μ A
h _{FE-1}	DC Current Gain	I _C = 0.1A ; V _{CE} = 5V	20	80	
h _{FE-2}	DC Current Gain	I _C = 1A ; V _{CE} = 5V	20	80	
h _{FE-3}	DC Current Gain	I _C = 3A ; V _{CE} = 5V	10		

Switching times

t _{on}	Turn-on Time	I _C = 3A , R _L = 50 Ω , I _{B1} = -I _{B2} = 0.6A, V _{CC} = 150V		1.0	μ s
t _{stg}	Storage Time			2.5	μ s
t _f	Fall Time			1.0	μ s

◆ h_{FE-2} Classifications

M	L	K
20-40	30-60	40-80

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