

isc Silicon NPN Power Transistor

2SC2333

DESCRIPTION

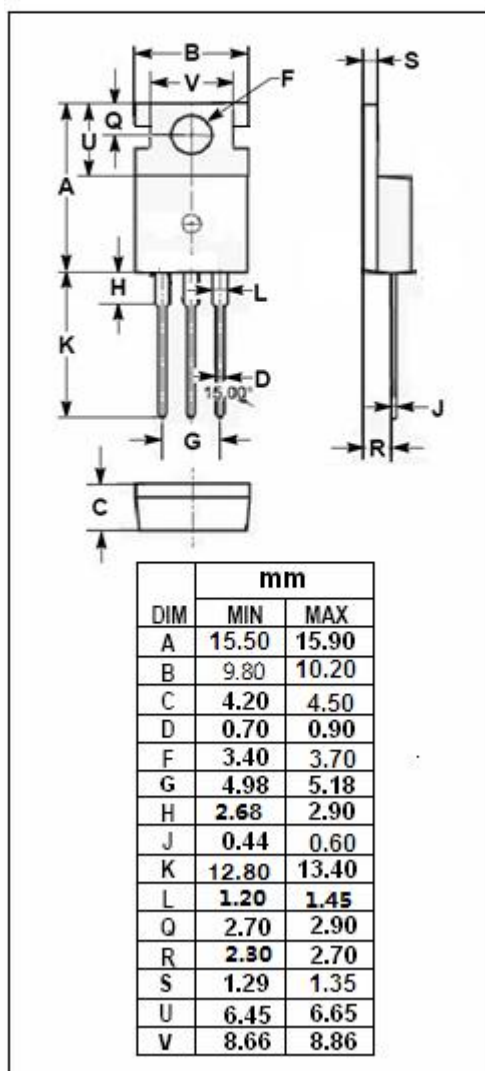
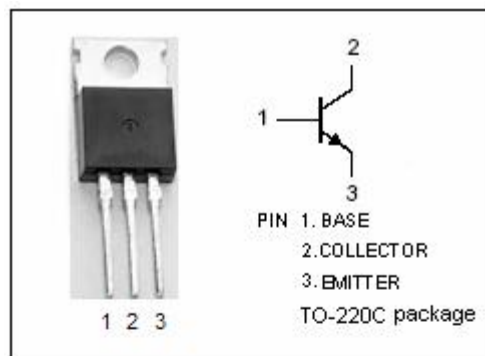
- Collector-Emitter Sustaining Voltage-
: $V_{CEO(SUS)} = 400V(\text{Min})$
- High Speed Switching
- Low Collector Saturation Voltage
- Wide Area of Safe Operation
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

APPLICATIONS

- Designed for switching regulator, DC-DC converter and ultrasonic appliance applications.

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	V
I_C	Collector Current-Continuous	2	A
I_{CM}	Collector Current-Peak	4	A
I_B	Base Current-Continuous	1	A
P_C	Collector Power Dissipation @ $T_C=25^\circ\text{C}$	15	W
T_J	Junction Temperature	150	$^\circ\text{C}$
T_{stg}	Storage Temperature Range	-55~150	$^\circ\text{C}$



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ELECTRICAL CHARACTERISTICS

T_c=25°C unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
V _{CEQ(SUS)}	Collector-Emitter Sustaining Voltage	I _C = 30mA; I _B = 0	400			V
V _{CE(sat)}	Collector-Emitter Saturation Voltage	I _C = 0.5A; I _B = 0.1A			1.0	V
V _{BE(sat)}	Base-Emitter Saturation Voltage	I _C = 0.5A; I _B = 0.1A			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)} = -5V V _{CE} = 400V; V _{BE(off)} = -5V; T _a = 125°C			10 1.0	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 = 0.5A ; V _{CE} = 5V	10			

Switching Times

t _{on}	Turn-on Time	I _C = 0.5A , R _L = 300 Ω , I _{B1} = -I _{B2} = 0.1A, 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-1} Classifications

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

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