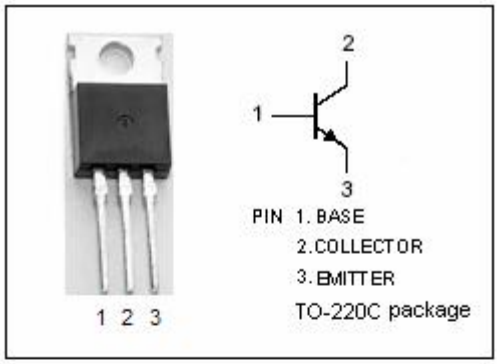
isc Silicon NPN Power Transistor 2SC4330

DESCRIPTION

- Low Collector Saturation Voltage
  : $V_{CE(sat)}$= 0.5V(Max)@ I_C= 8A
- Collector-Emitter Sustaining Voltage-
  : $V_{CEO(SUS)}$= 100V (Min)
- High Switching Speed
- 100% avalanche tested
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

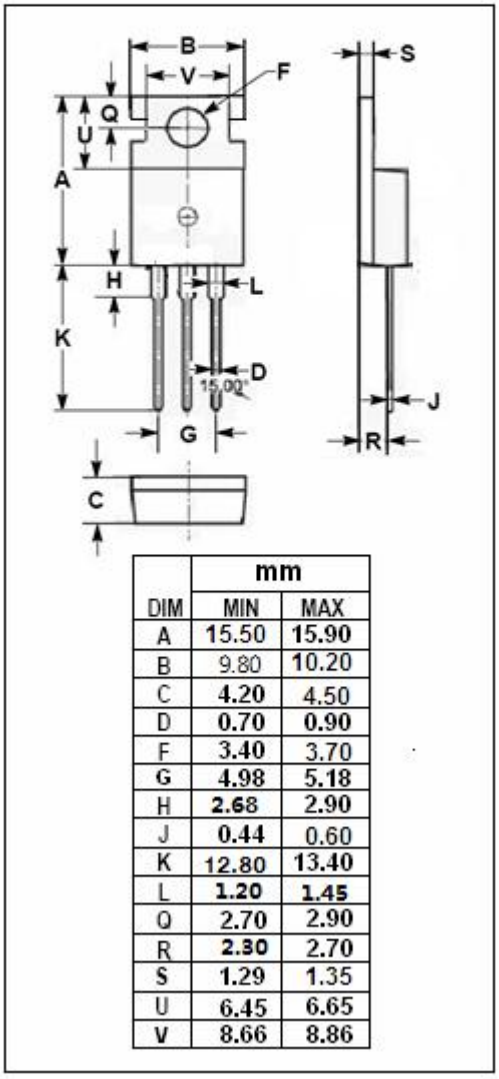


APPLICATIONS

- Designed for high speed and power switching applications

ABSOLUTE MAXIMUM RATINGS(T_a=25℃)

SYMBOL	PARAMETER	VALUE	UNIT
V_{CBO}	Collector-Base Voltage	150	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	5	A
P_C	Collector Power Dissipation @ T_C=25℃	40	W
T_J	Junction Temperature	150	℃
T_{stg}	Storage Temperature Range	-55~150	℃



DIM	mm MIN	MAX
A	15.50	15.90
B	9.80	10.20
C	4.20	4.50
D	0.70	0.90
F	3.40	3.70
G	4.98	5.18
H	2.68	2.90
J	0.44	0.60
K	12.80	13.40
L	1.20	1.45
Q	2.70	2.90
R	2.30	2.70
S	1.29	1.35
U	6.45	6.65
V	8.66	8.86

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ELECTRICAL CHARACTERISTICS

T_C=25℃ unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
$V_{CEO(SUS)}$	Collector-Emitter Sustaining Voltage	I_C= 3A ; I_B= 0.3A, L= 1mH	100			V
$V_{CE(sat)-1}$	Collector-Emitter Saturation Voltage	I_C= 6A; I_B= 0.3A			0.3	V
$V_{CE(sat)-2}$	Collector-Emitter Saturation Voltage	I_C= 8A; I_B= 0.4A			0.5	V
$V_{BE(sat)-1}$	Base-Emitter Saturation Voltage	I_C= 6A; I_B= 0.3A			1.2	V
$V_{BE(sat)-2}$	Base-Emitter Saturation Voltage	I_C= 8A; I_B= 0.4A			1.5	V
I_{CBO}	Collector Cutoff Current	V_{CB}= 150V; I_E= 0			10	μA
I_{CEX}	Collector Cutoff Current	V_{CE}= 100V; V_{BE}= -1.5V V_{CE}= 100V; V_{BE}= -1.5V;T_a=125℃			10 1.0	μA mA
I_{EBO}	Emitter Cutoff Current	V_{EB}= 5V; I_C= 0			10	μA
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	200	400	
h_{FE-3}	DC Current Gain	I_C= 6A ; V_{CE}= 2V	60			

◆ **h_{FE-2} classifications**

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

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