

isc Silicon NPN Power Transistor

2SC4330

DESCRIPTION

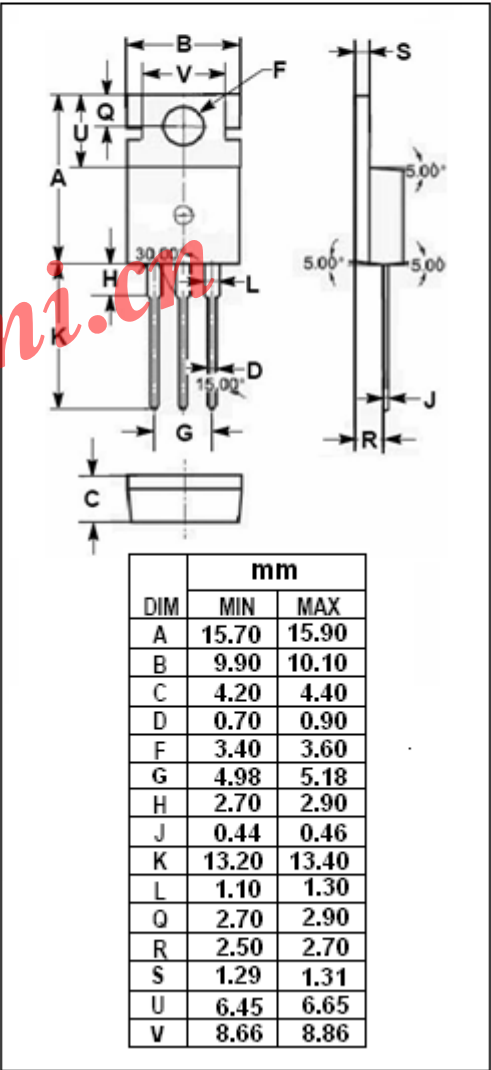
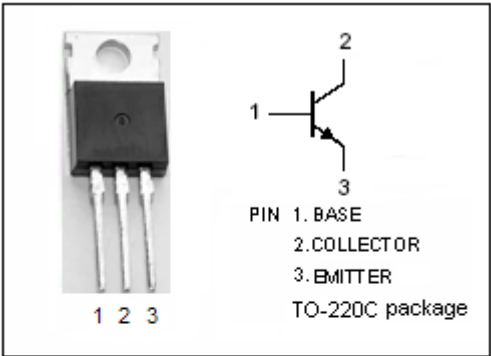
- Low Collector Saturation Voltage
: $V_{CE(sat)} = 0.5V(Max) @ I_C = 8A$
- Collector-Emitter Sustaining Voltage-
: $V_{CEO(SUS)} = 100V (Min)$
- High Switching Speed

APPLICATIONS

- Designed for high speed and power switching applications

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

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 @ $T_C=25^{\circ}C$	40	W
T_J	Junction Temperature	150	$^{\circ}C$
T_{stg}	Storage Temperature Range	-55~150	$^{\circ}C$



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ELECTRICAL CHARACTERISTICS

 $T_C=25^{\circ}\text{C}$ 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	$V_{CE} = 100V$; $V_{BE} = -1.5V$ $V_{CE} = 100V$; $V_{BE} = -1.5V$; $T_a = 125^{\circ}\text{C}$			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