

isc Silicon NPN Power Transistor

2SC4330

DESCRIPTION

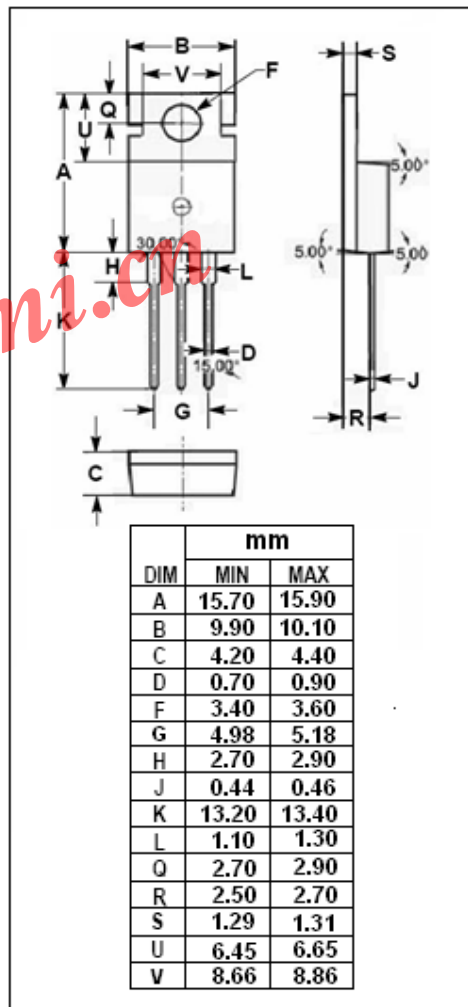
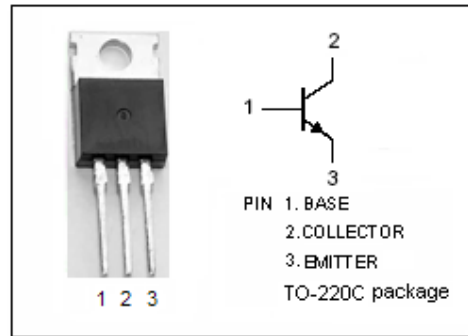
- Low Collector Saturation Voltage  
:  $V_{CE(sat)} = 0.5V(\text{Max}) @ I_C = 8A$
- Collector-Emitter Sustaining Voltage-  
:  $V_{CEO(SUS)} = 100V (\text{Min})$
- High Switching Speed

APPLICATIONS

- Designed for high speed and power switching applications

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

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



**isc Silicon NPN Power Transistor****2SC4330****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	$\mu A$
$I_{CEX}$	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	$\mu A$ mA
$I_{EBO}$	Emitter Cutoff Current	$V_{EB}=5V; I_C=0$			10	$\mu A$
$h_{FE-1}$	DC Current Gain	$I_C=1A; V_{CE}=2V$	100			
$h_{FE-2}$	DC Current Gain	$I_C=2A; V_{CE}=2V$	100	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