

# Silicon NPN Power Transistor

**2SC4231H**

## DESCRIPTION

- Collector-Emitter Sustaining Voltage-  
:  $V_{CEO(SUS)} = 800V(\text{Min})$
- Fast Switching speed

## APPLICATIONS

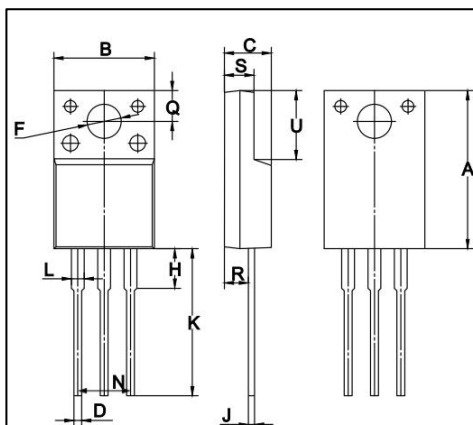
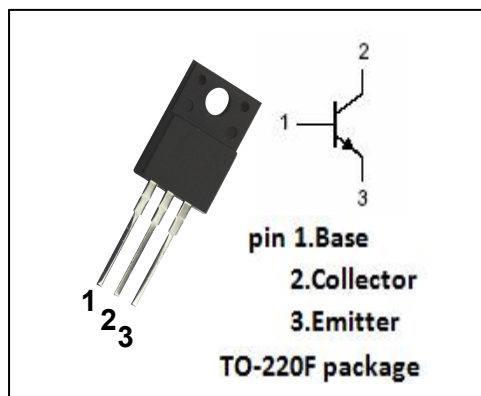
- Electronic ballasts for fluorescent lighting
- Switch mode power supplies

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

SYMBOL	PARAMETER	VALUE	UNIT
$V_{CBO}$	Collector-Base Voltage	1200	V
$V_{CEO}$	Collector-Emitter Voltage	800	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
$P_T$	Total Power Dissipation @ $T_C = 25^\circ\text{C}$	30	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	4.16	$^\circ\text{C/W}$



DIM	mm		
	MIN	TYP.	MAX
A	14.95	15.00	15.05
B	10.00	10.05	10.10
C	4.40	4.50	4.60
D	0.75	0.83	0.90
F	3.10	3.20	3.30
H	3.70	3.80	3.90
J	0.50	0.60	0.70
K	13.40	13.50	13.60
L	1.10	1.20	1.30
N	5.00	5.10	5.20
Q	2.70	2.80	2.90
R	2.20	2.30	2.40
S	2.65	2.78	2.90
U	6.40	6.50	6.60

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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	$I_C=0.1\text{A}; I_B=0$	800	--	--	V
$V_{CE(sat)}$	Collector-Emitter Saturation Voltage	$I_C=1\text{A}; I_B=0.2\text{A}$	--	--	1.0	V
$V_{BE(sat)}$	Base-Emitter Saturation Voltage	$I_C=1\text{A}; I_B=0.2\text{A}$	--	--	1.5	V
$I_{CBO}$	Collector Cutoff Current	At rated Voltage	--	--	100	$\mu\text{A}$
$I_{CEO}$	Collector Cutoff Current	At rated Voltage	--	--	100	$\mu\text{A}$
$I_{EBO}$	Emitter Cutoff Current	At rated Voltage	--	--	100	$\mu\text{A}$
$h_{FE-1}$	DC Current Gain	$I_C=1\text{A}; V_{CE}=5\text{V}$	8	--	--	
$h_{FE-2}$	DC Current Gain	$I_C=1\text{mA}; V_{CE}=5\text{V}$	7	--	--	

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