

Silicon NPN Power Transistor

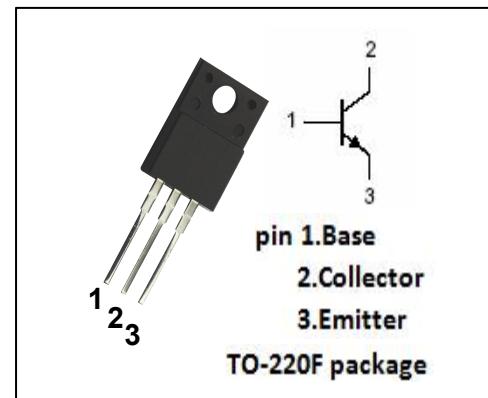
2SC4231H

DESCRIPTION

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

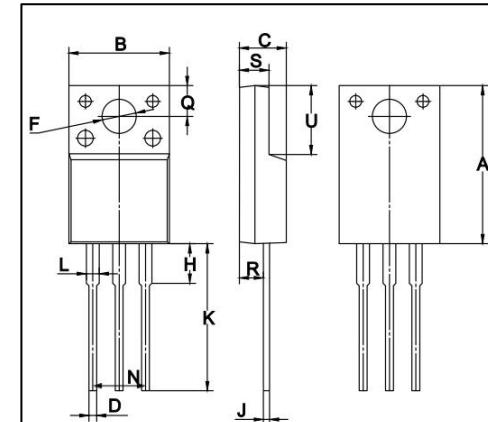
APPLICATIONS

- Electronic ballasts for fluorescent lighting
- Switch mode power supplies



ABSOLUTE MAXIMUM RATINGS(Ta=25°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	°C
T_{stg}	Storage Temperature Range	-55~150	°C



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

THERMAL CHARACTERISTICS

SYMBOL	PARAMETER	MAX	UNIT
$R_{th j-c}$	Thermal Resistance,Junction to Case	4.16	°C/W

Silicon NPN Power Transistor**2SC4231H****ELECTRICAL CHARACTERISTICS (T_c=25°C unless otherwise specified)**

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
V _{CEO(sus)}	Collector-Emitter Sustaining Voltage	I _c = 0.1A; I _b = 0	800	--	--	V
V _{CE(sat)}	Collector-Emitter Saturation Voltage	I _c = 1A; I _b = 0.2A	--	--	1.0	V
V _{BE(sat)}	Base-Emitter Saturation Voltage	I _c = 1A; I _b = 0.2A	--	--	1.5	V
I _{CBO}	Collector Cutoff Current	At rated Voltage	--	--	100	µ A
I _{CEO}	Collector Cutoff Current	At rated Voltage	--	--	100	µ A
I _{EBO}	Emitter Cutoff Current	At rated Voltage	--	--	100	µ A
h _{FE-1}	DC Current Gain	I _c = 1A; V _{CE} = 5V	8	--	--	
h _{FE-2}	DC Current Gain	I _c = 1mA; V _{CE} = 5V	7	--	--	

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