

isc Silicon NPN Power Transistors

2SC5416

DESCRIPTION

- NPN triple diffused planar silicon transistor
- Low Saturation Voltage
- 100% avalanche tested
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

APPLICATIONS

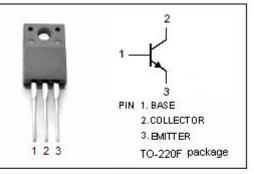
Inverter lighting applications

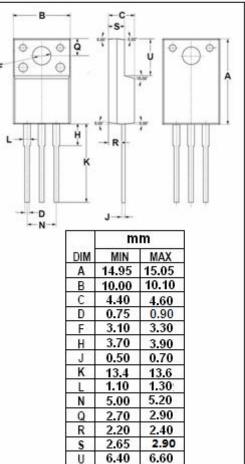
ABSOLUTE MAXIMUM RATINGS(Ta=25°C)

SYMBOL	PARAMETER	VALUE	UNIT
V _{CBO}	Collector-Base Voltage	1000	v
V _{CEO}	Collector-Emitter Voltage	450	v
V _{EBO}	Emitter-Base Voltage	9	v
lc	Collector Current-Continuous	4	А
I _{См}	Collector Current-Peak	8	А
lв	Base Current-Continuous	1	А
Pτ	Total Power Dissipation @ T_c =25°C	35	W
TJ	Junction Temperature 150		°C
T _{stg}	Storage Temperature Range	-55~150	°C

THERMAL CHARACTERISTICS						
SYMBOL	PARAMETER	МАХ	UNIT			
Rth j-c	Thermal Resistance, Junction to Case	3.57	°C/W			

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ELECTRICAL CHARACTERISTICS

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SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	МАХ	UNIT
Vceo(sus)	Collector-Emitter Sustaining Voltage	I _C = 0.1A; I _B = 0	400			v
V _{CE(sat)}	Collector-Emitter Saturation Voltage	I _C = 2.0A; I _B = 0.4A			1.0	v
V _{BE(sat)}	Base-Emitter Saturation Voltage	I _C = 2.0A; I _B = 0.4A			1.5	v
I _{CBO}	Collector Cutoff Current	At rated Voltage			1	mA
I _{CEO}	Collector Cutoff Current	At rated Voltage			1	μ Α
I _{EBO}	Emitter Cutoff Current	At rated Voltage			1	mA
h _{FE-1}	DC Current Gain	I _C =0.1A; V _{CE} =5V	30		50	
h _{FE-2}	DC Current Gain	Ic= 1.5A; Vce= 5V	10			
Switching ti	mes	1	1	1	1	L
ton	Turn-on Time				0.3	μ S
t _{stg}	Storage Time	I _C = 2A; I _{B1} =0.4A; I _{B2} = -0.8A			2.5	μ S

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Fall Time

tf



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