

isc Silicon NPN Power Transistor
2SC4430
DESCRIPTION

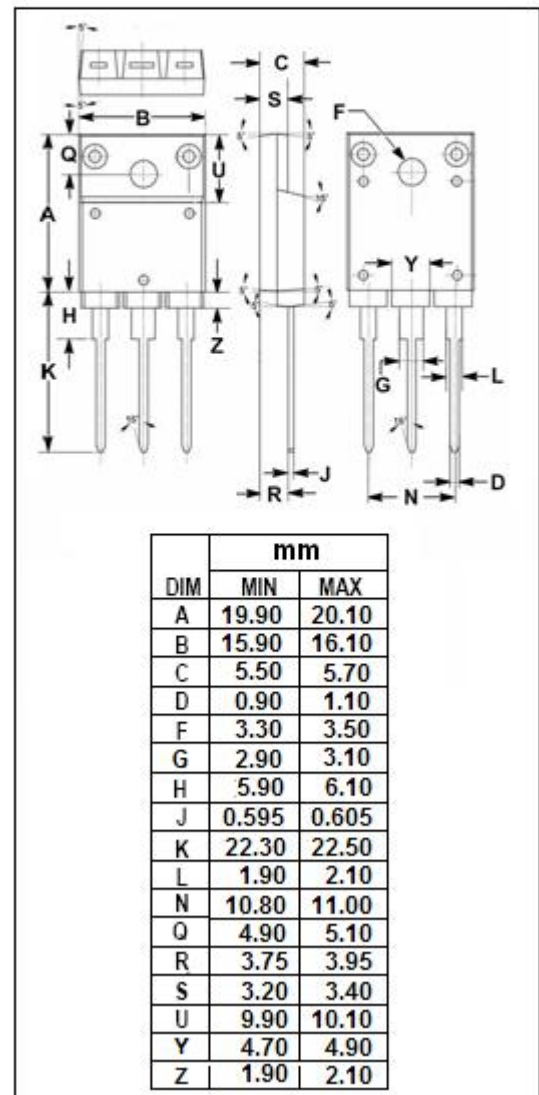
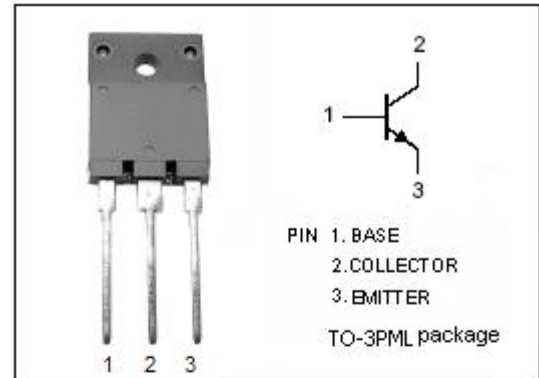
- NPN triple diffused planar silicon transistor
- High Switching Speed
- Wide Area of Safe Operation
- 100% avalanche tested
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

APPLICATIONS

- Switching regulator applications

ABSOLUTE MAXIMUM RATINGS (T_a=25°C)

SYMBOL	PARAMETER	VALUE	UNIT
V _{CBO}	Collector-Base Voltage	1100	V
V _{CEO}	Collector-Emitter Voltage	800	V
V _{EBO}	Emitter-Base Voltage	7	V
I _C	Collector Current- Continuous	12	A
I _{CM}	Collector Current- Peak	20	A
P _C	Collector Power Dissipation @ T _C =25°C	65	W
T _J	Junction Temperature	150	°C
T _{stg}	Storage Temperature Range	-55~150	°C



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ELECTRICAL CHARACTERISTICS

T_c=25°C unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
V _{CE(sat)}	Collector-Emitter Saturation Voltage	I _C = 6A; I _B = 1.2A			2.0	V
V _{BE(sat)}	Base-Emitter Saturation Voltage	I _C = 6A; I _B = 1.2A			1.5	V
I _{CBO}	Collector Cutoff Current	V _{CB} = 800V; I _E = 0			100	μ A
I _{EBO}	Emitter Cutoff Current	V _{EB} =7V; I _C = 0			100	uA
h _{FE-1}	DC Current Gain	I _C = 0.8A; V _{CE} = 5V	10		40	
h _{FE-2}	DC Current Gain	I _C = 4A; V _{CE} = 5V	8			
C _{OB}	Output Capacitance	I _E = 0; V _{CB} = 10V; f= 1MHz		215		pF
f _T	Current-Gain—Bandwidth Product	I _E = -0.8A; V _{CE} = 10V		15		MHz

◆ h_{FE-1} Classifications

K	L	M
10-20	15-30	20-40

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