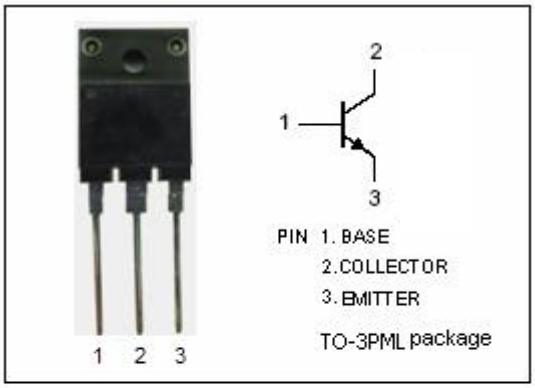
isc Silicon NPN Power Transistor — 2SC4423



DESCRIPTION

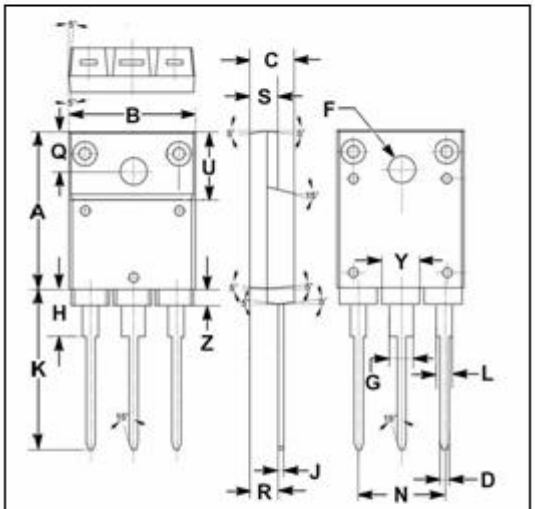
- High Collector-Emitter Breakdown Voltage-
  : $V_{(BR)CEO}$= 400V(Min)
- High Switching Speed
- High Reliability
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

APPLICATIONS

- Designed for switching regulator and general purpose applications.

ABSOLUTE MAXIMUM RATINGS(T_a=25℃)

SYMBOL	PARAMETER	VALUE	UNIT
V_{CBO}	Collector-Base Voltage	500	V
V_{CEO}	Collector-Emitter Voltage	400	V
V_{EBO}	Emitter-Base voltage	7	V
I_C	Collector Current-Continuous	12	A
I_{CM}	Collector Current-Peak	25	A
I_B	Base Current-Continuous	4	A
P_C	Collector Power Dissipation @ T_C=25℃	55	W
T_J	Junction Temperature	150	℃
T_{stg}	Storage Temperature Range	-55~150	℃



DIM	mm MIN	MAX
A	19.90	20.10
B	15.75	16.10
C	5.50	5.70
D	0.90	1.10
F	3.30	3.50
G	2.90	3.20
H	5.90	6.10
J	0.595	0.70
K	21.10	22.50
L	1.90	2.25
N	10.80	11.00
Q	4.90	5.10
R	3.75	3.95
S	3.20	3.60
U	9.90	10.10
Y	4.20	4.90
Z	1.90	2.10

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ELECTRICAL CHARACTERISTICS

T_C=25℃ unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
$V_{(BR)CEO}$	Collector-Emitter Breakdown Voltage	I_C= 25mA ; I_B= 0	400			V
$V_{CE(sat)}$	Collector-Emitter Saturation Voltage	I_C= 8A; I_B=1.6A			0.8	V
$V_{BE(sat)}$	Base-Emitter Saturation Voltage	I_C= 8A; I_B= 1.6A			1.5	V
I_{CBO}	Collector Cutoff Current	V_{CB}= 400V ; I_E= 0			10	uA
I_{EBO}	Emitter Cutoff Current	V_{EB}= 5V; I_C= 0			10	uA
h_{FE-1}	DC Current Gain	I_C=1.6A ; V_{CE}= 5V	15		50	
h_{FE-2}	DC Current Gain	I_C=8A ; V_{CE}= 5V	10			
h_{FE-3}	DC Current Gain	I_C=10mA ; V_{CE}= 5V	10			
C_{OB}	Output Capacitance	I_E= 0 ; V_{CB}= 10V; f_{test}=1.0MHz		85		pF
f_T	Current-Gain—Bandwidth Product	I_E= -1.5A ; V_{CE}= 12V		10		MHz

◆ **h_{FE-1} Classifications**

L	M	N
15-30	20-40	30-50