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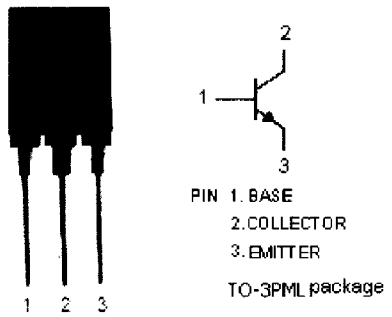
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Silicon NPN Power Transistor

2SC4424



PIN 1. BASE
2. COLLECTOR
3. EMITTER

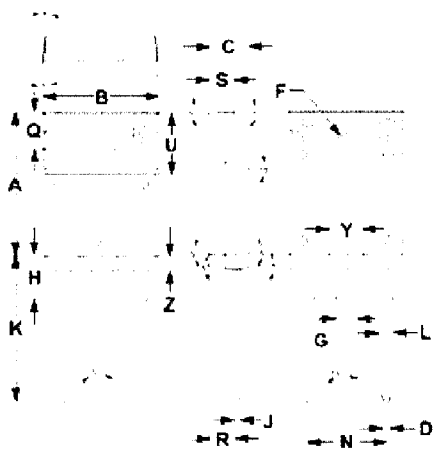
TO-3PML package

DESCRIPTION

- High Collector-Emitter Breakdown Voltage-
  : $V_{(BR)CEO}$= 400V(Min)
- High Switching Speed
- Wide Area of Safe Operation

APPLICATIONS

- Designed for switching regulator and general purpose applications.



DIM	mm MIN	MAX
A	19.90	20.10
B	15.90	16.10
C	5.50	5.70
D	0.90	1.10
F	3.30	3.50
G	2.90	3.10
H	5.90	6.10
J	0.595	0.605
K	22.30	22.50
L	1.90	2.10
N	10.80	11.00
Q	4.90	5.10
R	3.75	3.95
S	3.20	3.40
U	9.90	10.10
Y	4.70	4.90
Z	1.90	2.10

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	16	A
I_{CM}	Collector Current-Peak	32	A
I_B	Base Current-Continuous	6	A
P_C	Collector Power Dissipation @ T_C=25℃	60	W
	Collector Power Dissipation @ T_a=25℃	3	
T_J	Junction Temperature	150	℃
T_{stg}	Storage Temperature Range	-55~150	℃

NJ Semi-Conductors reserves the right to change test conditions, parameter limits and package dimensions without notice. Information furnished by NJ Semi-Conductors is believed to be both accurate and reliable at the time of going to press. However, NJ Semi-Conductors assumes no responsibility for any errors or omissions discovered in its use. NJ Semi-Conductors encourages customers to verify that datasheets are current before placing orders.

Quality Semi-Conductors

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ELECTRICAL CHARACTERISTICS

T_C=25℃ unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
$V_{(BR)CBO}$	Collector-Base Breakdown Voltage	I_C= 1mA; I_E= 0	500			V
$V_{(BR)CEO}$	Collector-Emitter Breakdown Voltage	I_C= 10mA; R_{BE}= ∞	400			V
$V_{(BR)EBO}$	Emitter-Base Breakdown Voltage	I_E= 1m A; I_C= 0	7			V
$V_{CE(sat)}$	Collector-Emitter Saturation Voltage	I_C= 10A; I_B= 2A			0.8	V
$V_{BE(sat)}$	Base-Emitter Saturation Voltage	I_C= 10A; I_B= 2A			1.5	V
I_{CBO}	Collector Cutoff Current	V_{CB}= 400V; I_E= 0			10	μA
I_{EBO}	Emitter Cutoff Current	V_{EB}= 5V; I_C= 0			10	μA
h_{FE-1}	DC Current Gain	I_C= 2A; V_{CE}= 5V	15		50	
h_{FE-2}	DC Current Gain	I_C= 10A; V_{CE}= 5V	10			
h_{FE-3}	DC Current Gain	I_C= 10mA; V_{CE}= 5V	10			
f_T	Current-Gain—Bandwidth Product	I_C= 2A; V_{CE}= 10V		20		MHz
C_{OB}	Output Capacitance	I_E= 0; V_{CB}= 10V; f_{test}= 1.0MHz		230		pF

Switching Times

t_{on}	Turn-on Time	I_C= 12A, I_{B1}= 2.4A; I_{B2}= -4.8A; R_L= 16.6Ω; V_{CC}= 200V			0.5	μs
t_{stg}	Storage Time				2.5	μs
t_f	Fall Time				0.3	μs

◆ h_{FE-1} Classifications

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