New Jersey Semi-Conductor Products, Inc.

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SWITCHMODE SERIES NPN POWER TRANSISTORS

... designed for use in high-voltage,high-speed,power switching in inductive circuit, and switchmode applications such as switching regulator's,converters.

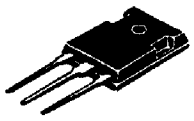
NPN

2SC2625

FEATURES:

*Collector-Emitter Sustaining Voltage-
$V_{CEO(sus)}$ = 400 V (Min)
* Collector-Emitter Saturation Voltage -
$V_{CE(sat)}$ = 1.2 V (Max.) @ I_C = 4.0 A, I_B = 0.8A
* Switching Time - t_f = 1.0 us (Max.) @ I_C =5.0 A

10 AMPERE
SILICON POWER
TRANASISTORS
400 VOLTS
80 WATTS



TO-247(3P)

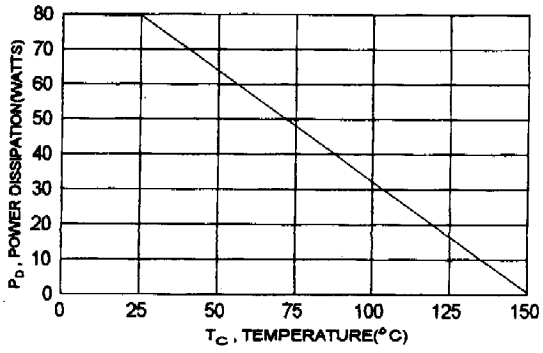
MAXIMUM RATINGS

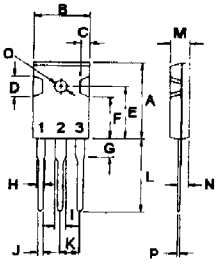
Characteristic	Symbol	2SC2625	Unit
Collector-Emitter Voltage	V_{CEO}	400	V
Collector-Base Voltage	V_{CBO}	450	V
Emitter-Base Voltage	V_{EBO}	7.0	V
Collector Current - Continuous - Peak	I_C I_{CM}	10 20	A
Base current	I_B	3.0	A
Total Power Dissipation @T_C = 25°C Derate above 25°C	P_D	80 0.64	W W/°C
Operating and Storage Junction Temperature Range	T_J , T_{STG}	-55 to +150	°C

THERMAL CHARACTERISTICS

Characteristic	Symbol	Max	Unit
Thermal Resistance Junction to Case	Rθjc	1.56	°C/W

FIGURE -1 POWER DERATING





PIN 1.BASE
2.COLLECTOR
3.EMITTER

DIM	MILLIMETERS	
	MIN	MAX
A	20.63	22.38
B	15.38	16.20
C	1.90	2.70
D	5.10	6.10
E	14.81	15.22
F	11.72	12.84
G	4.20	4.50
H	1.82	2.46
I	2.92	3.23
J	0.89	1.53
K	5.26	5.66
L	18.50	21.50
M	4.68	5.36
N	2.40	2.80
O	3.25	3.65
P	0.55	0.70

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

ELECTRICAL CHARACTERISTICS (T_C = 25°C unless otherwise noted)

Characteristic	Symbol	Min	Max	Unit
OFF CHARACTERISTICS				
Collector-Emitter Breakdown Voltage (I_C= 10 mA, I_B=0)	$V_{(BR)CEO}$	400		V
Collector-Base Breakdown Voltage (I_C= 1.0 mA, I_E=0)	$V_{(BR)CBO}$	450		V
Collector Cutoff Current (V_{CB}= 450 V, I_E= 0)	I_{CBO}		1.0	mA
Emitter Cutoff Current (V_{EB}= 7.0 V, I_C= 0)	I_{EBO}		100	uA
ON CHARACTERISTICS (1)				
DC Current Gain (I_C= 4.0 A,V_{CE}= 5.0 V)	hFE	10		
Collector-Emitter Saturation Voltage (I_C= 4.0 A,I_B= 800 mA)	$V_{CE(sat)}$		1.2	V
Base-Emitter Saturation Voltage (I_C= 4.0 A,I_B= 800 mA)	$V_{BE(sat)}$		1.5	V
SWITCHING CHARACTERISTICS				
On Time	V_{CC}= 150 V, I_C= 5.0 A I_{B1}=-I_{B2}= 1.0 A R_L=30 ohm	t_{on}	1.0	us
Storage Time		t_s	2.5	us
Fall Time		t_f	1.0	us

(1) Pulse Test: Pulse Width =300 us, Duty Cycle ≦ 2.0%