

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.

FEATURES:

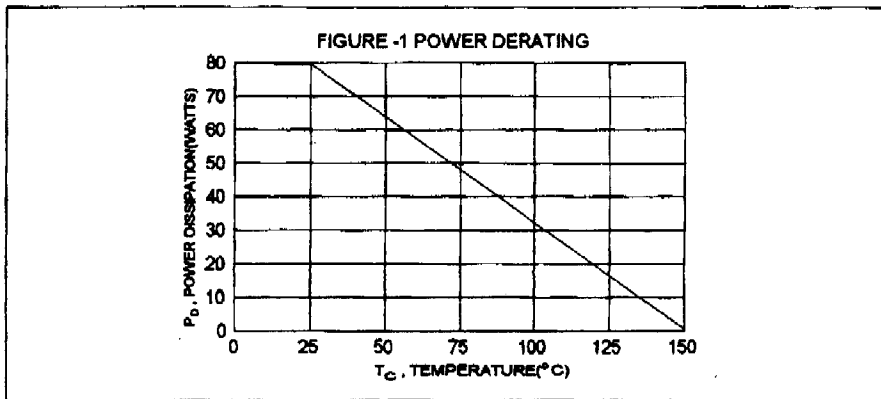
- *Collector-Emitter Sustaining Voltage -
 $V_{CE(sus)} = 400$ V (Min)
- *Collector-Emitter Saturation Voltage -
 $V_{CE(sat)} = 1.2$ V (Max.) @ $I_C = 4.0$ A, $I_B = 0.8$ A
- *Switching Time - $t_f = 1.0$ us (Max.) @ $I_C = 5.0$ A

MAXIMUM RATINGS

Characteristic	Symbol	2SC2625	Unit
Collector-Emitter Voltage	V_{CE0}	400	V
Collector-Base Voltage	V_{CB0}	450	V
Emitter-Base Voltage	V_{EB0}	7.0	V
Collector Current - Continuous - Peak	I_C I_{CM}	10 20	A
Base current	I_B	3.0	A
Total Power Dissipation @ $T_C = 25^\circ\text{C}$ 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	$R_{\theta jc}$	1.56	°C/W

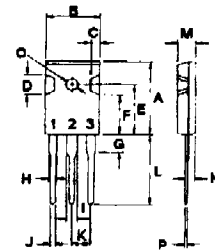


**NPN
 2SC2625**

**10 AMPERE
 SILICON POWER
 TRANSISTORS
 400 VOLTS
 80 WATTS**



TO-247(3P)



**PIN 1. BASE
 2. COLLECTOR
 3. EMITTER**

DIM	MILLIMETERS	
	MIN	MAX
A	20.63	22.36
B	15.36	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	4.60
H	1.82	2.48
I	2.92	3.23
J	0.89	1.53
K	5.28	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 ($T_c = 25^\circ\text{C}$ unless otherwise noted)

Characteristic	Symbol	Min	Max	Unit
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OFF CHARACTERISTICS

Collector-Emitter Breakdown Voltage ($I_C = 10\text{ mA}, I_E = 0$)	$V_{(BR)CEO}$	400		V
Collector-Base Breakdown Voltage ($I_C = 1.0\text{ mA}, I_E = 0$)	$V_{(BR)CBO}$	450		V
Collector Cutoff Current ($V_{CB} = 450\text{ V}, I_E = 0$)	I_{CBO}		1.0	mA
Emitter Cutoff Current ($V_{EB} = 7.0\text{ V}, I_C = 0$)	I_{EBO}		100	μA

ON CHARACTERISTICS (1)

DC Current Gain ($I_C = 4.0\text{ A}, V_{CE} = 5.0\text{ V}$)	hFE	10		
Collector-Emitter Saturation Voltage ($I_C = 4.0\text{ A}, I_B = 800\text{ mA}$)	$V_{CE(sat)}$		1.2	V
Base-Emitter Saturation Voltage ($I_C = 4.0\text{ A}, I_B = 800\text{ mA}$)	$V_{BE(sat)}$		1.5	V

SWITCHING CHARACTERISTICS

On Time	$V_{CC} = 150\text{ V}, I_C = 5.0\text{ A}$ $I_{B1} = I_{B2} = 1.0\text{ A}$ $R_L = 30\text{ ohm}$	t_{on}		1.0	μs
Storage Time		t_s		2.5	μs
Fall Time		t_f		1.0	μs

(1) Pulse Test: Pulse Width = 300 μs , Duty Cycle $\leq 2.0\%$