New Jersey Semi-Conductor Products, Inc.

20 STERN AVE. SPRINGFIELD, NEW JERSEY 07081 U.S.A. TELEPHONE: (973) 376-2922 (212) 227-6005 FAX: (973) 376-8960

MJE2801 HIGH-POWER NPN SILICON TRANSISTOR

MAXIMUM RATINGS

Rating	Symbol	Value		Unit
Collector-Emitter Voitage	VCEO	60		Vdc
Collector-Base Voltage	VCB	60		Vdc
Emitter-Base Voltage	VEB	4.0		Vdc
Collector Current	'c	10		Adc
Base Current	i _B	5.0		Adc
Total Device Dissipation @ $T_C = 25^{\circ}C$ Derate above $25^{\circ}C$	Pot	90 0.72		Watts W/ ^O C
Operating and Storage Junction Temperature Range	Τj, T _{stg}	-55 to +150		°C
THERMAL CHARACTERISTICS	,			
Characteristic	Symbol	M	ax	Unit
	θις	1.39		°C/W
Thermal Resistance, Junction to Case tSefe Area Curves are indicated by Figure ELECTRICAL CHARACTERISTICS	1. Both limits a	re applica	ble and m	ust be obser
†Sefe Area Curves are indicated by Figure	1. Both limits a	re applica	ble and m	ust be übser
tSafe Area Curves are indicated by Figure ELECTRICAL CHARACTERISTICS Characteristic	1. Both limits a (T _C = 25 ⁰ C un Symbol	re applica iess other	ble and mi	ust be observ 1)
tSafe Area Curves are indicated by Figure ELECTRICAL CHARACTERISTICS Characteristic OFF CHARACTERISTICS Collector-Emitter Breakdown Voltage (1)	1. Both limits a (T _C = 25 ⁰ C un Symbol	re applica iess other Min	ble and mi	ust be observ 1) Unit
tSafe Area Curves are indicated by Figure ELECTRICAL CHARACTERISTICS Characteristic OFF CHARACTERISTICS Collector-Emitter Breakdown Voltage (1) (I _C = 200 mAdc, I _B = 0) Collector-Cutoff Current (V _{CB} = 60 Vdc, I _E = 0)	1. Both limits = (T _C = 25 ⁰ C un Symbol BV _{CEO}	re applica iess other Min	ble and mi wise notec Max -	ust be observ i) Unit Vdc
tSafe Area Curves are indicated by Figure ELECTRICAL CHARACTERISTICS Characteristic OFF CHARACTERISTICS Collector-Emitter Breakdown Voltage (1) (I _C = 200 mAdc, I _B = 0) Collector-Cutoff Current (V _{CB} = 60 Vdc, I _E = 0) (V _{CB} = 60 Vdc, I _E = 0, T _C = 150 ^o C) Emitter Cutoff Current (V _{BE} = 4.0 Vdc, I _C = 0)	1. Both limits = (T _C = 25 ^o C un Symbol BV _{CEO} ^I CBO	re applica iess other Min		ust be observ i) Unit Vdc mAdc
tSafe Area Curves are indicated by Figure ELECTRICAL CHARACTERISTICS Characteristic OFF CHARACTERISTICS Collector-Emitter Breakdown Voltage (1) (IC = 200 mAdc, Ig = 0) Collector-Cutoff Current (VCB = 60 Vdc, IE = 0) (VCB = 60 Vdc, IE = 0, TC = 150°C) Emitter Cutoff Current	1. Both limits = (T _C = 25 ^o C un Symbol BV _{CEO} ^I CBO	re applica iess other Min		ust be observ i) Unit Vdc mAdc

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





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