

# New Jersey Semi-Conductor Products, Inc.

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2N6282 2N6283 2N6284 NPN  
2N6285 2N6286 2N6287 PNP

## COMPLEMENTARY SILICON DARLINGTON POWER TRANSISTORS

JEDEC TO-3 CASE

### MAXIMUM RATINGS (T<sub>C</sub>=25°C)

	SYMBOL	2N6282 2N6285	2N6283 2N6286	2N6284 2N6287	UNIT
Collector-Base Voltage	V <sub>CB0</sub>	60	80	100	V
Collector-Emitter Voltage	V <sub>CE0</sub>	60	80	100	V
Emitter-Base Voltage	V <sub>EB0</sub>	5.0	5.0	5.0	V
Collector Current	I <sub>C</sub>		20		A
Collector Current (Peak)	I <sub>CM</sub>		40		A
Base Current	I <sub>B</sub>		0.5		A
Power Dissipation	P <sub>D</sub>		160		W
Operating and Storage Junction Temperature	T <sub>J</sub> , T <sub>STG</sub>		-65 TO +200		°C
Thermal Resistance	θ <sub>JC</sub>		1.09		°C/W

### ELECTRICAL CHARACTERISTICS (T<sub>C</sub>=25°C unless otherwise noted)

SYMBOL	TEST CONDITIONS	2N6282 2N6285		2N6283 2N6286		2N6284 2N6287		UNIT
		MIN	MAX	MIN	MAX	MIN	MAX	
I <sub>CEX</sub>	V <sub>CE</sub> =Rated V <sub>CB0</sub> , V <sub>BE</sub> (OFF)=1.5V		0.5		0.5		0.5	mA
I <sub>CEX</sub>	V <sub>CE</sub> =Rated V <sub>CB0</sub> , V <sub>BE</sub> (OFF)=1.5V, T <sub>C</sub> =150°C		5.0		5.0		5.0	mA
I <sub>CE0</sub>	V <sub>CE</sub> =½ Rated V <sub>CE0</sub>		1.0		1.0		1.0	mA
I <sub>EB0</sub>	V <sub>BE</sub> =5.0V		2.0		2.0		2.0	mA
BV <sub>CE0</sub>	I <sub>C</sub> =100mA	60		80		100		V
V <sub>CE</sub> (SAT)	I <sub>C</sub> =10A, I <sub>B</sub> =40mA		2.0		2.0		2.0	V
V <sub>CE</sub> (SAT)	I <sub>C</sub> =20A, I <sub>B</sub> =200mA		3.0		3.0		3.0	V
V <sub>BE</sub> (SAT)	I <sub>C</sub> =20A, I <sub>B</sub> =200mA		4.0		4.0		4.0	V
V <sub>BE</sub> (ON)	V <sub>CE</sub> =3.0V, I <sub>C</sub> =10A		2.8		2.8		2.8	V
h <sub>FE</sub>	V <sub>CE</sub> =3.0V, I <sub>C</sub> =10A	750	18,000	750	18,000	750	18,000	
h <sub>FE</sub>	V <sub>CE</sub> =3.0V, I <sub>C</sub> =20A	100		100		100		
h <sub>fe</sub>	V <sub>CE</sub> =3.0V, I <sub>C</sub> =10A, f=1.0kHz	300		300		300		
f <sub>T</sub>	V <sub>CE</sub> =3.0V, I <sub>C</sub> =10A, f=1.0MHz	4.0		4.0		4.0		MHz
C <sub>ob</sub>	V <sub>CB</sub> =10V, I <sub>E</sub> =0, f=0.1MHz (NPN types)		400		400		400	pF
C <sub>ob</sub>	V <sub>CB</sub> =10V, I <sub>E</sub> =0, f=0.1MHz (PNP types)		600		600		600	pF



NJ Semi-Conductors reserves the right to change test conditions, parameters 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**