

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

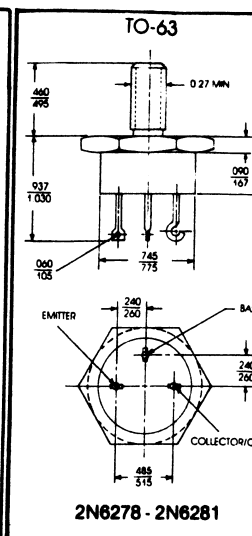
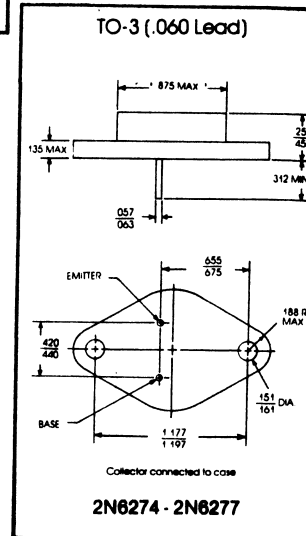
NPN POWER TRANSISTORS 50 AMP SWITCHING

2N6274 thru
 2N6281

- 250 W. Continuous Power
- VCEO (sus) to 150 V.

MAXIMUM RATINGS

PARAMETER	SYMBOL	2N6274	2N6275	2N6276	2N6277	UNIT
		2N6278	2N6279	2N6280	2N6281	
Collector-Emitter Voltage	VCEO	100	120	140	150	V
Collector-Base Voltage	VCBO	120	140	160	180	V
Emitter-Base Voltage	VEBO	6	6	6	6	V
Collector Current-Continuous		50	50	50	50	A
	-Peak	100	100	100	100	A
Base Current-Continuous		20	20	20	20	A
Power Dissipation @ Tc < 25°C		250	250	250	250	W
Linear Derating Factor		1.43	1.43	1.43	1.43	W/°C
Storage & Operating Junction Temp. Range		-65°C to +200°C				
Lead Temperature (1/16" from case)		+235°C for 10 seconds				



ELECTRICAL CHARACTERISTICS AT 25°C CASE TEMPERATURE

PARAMETER	SYMBOL	TEST CONDITIONS	2N6274 2N6278		2N6275 2N6279		2N6276 2N6280		2N6277 2N6281		UNIT
			MIN.	MAX.	MIN.	MAX.	MIN.	MAX.	MIN.	MAX.	
Collector Cutoff Current	ICEX	^{1,2} VCE = 120V, VBE = 1.5V		1		1					mA
		² VCE = 140V, VBE = 1.5V				1					mA
		² VCE = 160V, VBE = 1.5V					1				mA
		² VCE = 180V, VBE = 1.5V						1			mA
Collector Cutoff Current	ICEX	¹ VCE = 120V, VBE = 1.5V		10						1	μA
		VCE = 140V, VBE = 1.5V				10					μA
		VCE = 160V, VBE = 1.5V					10				μA
		VCE = 180V, VBE = 1.5V						10			μA
Emitter Cutoff Current	IEBO	VEB = 6V		100		100		100		100	μA
Collector-Emitter Sustain Voltage*	VCEO(sus)	IB = 0, IC = 50mA	100		120		140		150		V
DC Forward Current Transfer Ratio*	hFE	VCE = 4V, IC = 50A	10		10		10		10		
		VCE = 4V, IC = 20A	30	120	30	120	30	120	30	120	
		VCE = 4V, IC = 1A	50		50		50		50		
Collector-Emitter Saturation Voltage*	VCE(sat)	IC = 50A, IB = 10A		3		3		3		3	V
		IC = 20A, IB = 2A		1		1		1		1	V
Base-Emitter Voltage*	VBE(sat)	IC = 50A, IB = 10A		1.2		1.2		1.2		1.2	V
		IC = 20A, IB = 2A		1.8		1.8		1.8		1.8	V
Base Emitter On Voltage	VBE(on)	IC = 20A, VCE = 4V		1.8		1.8		1.8		1.8	V
Collector Cutoff Current	ICEO	VCE = 50V, IB = 0		50							μA
		VCE = 60V, IB = 0				50					μA
		VCE = 70V, IB = 0					50				μA
		VCE = 75V, IB = 0						50			μA
Rise Time	tr	VCC = 80V, IC = 20A IB1 = 2A, VOB = 5V		.35		.35		.35		.35	μs
Storage Time	ts	VCC = 80V, IC = 20A IB1 = IB2 = 2A		.80		.80		.80		.80	μs
High Frequency Beta	hfe	VCE = 10V, IC = 1A, f = 10MHz	3		3		3		3		
Common Base Output Capacitance	Cob	VCB = 10V, IE = 0, f = 0.1MHz		600		600		600		600	pF

* Pulse Test: Pulse width < 300 μs; Duty Cycle < 2%
 † Emitter diode is reverse biased

2. Tc = 150°C



Quality Semi-Conductors