

New Jersey Semi-Conductor Products, Inc.

20 STERN AVE.
 SPRINGFIELD, NEW JERSEY 07081
 U.S.A.

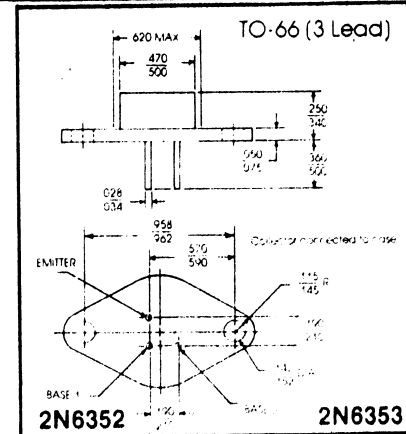
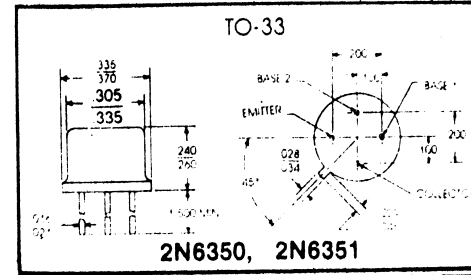
NPN POWER DARLINGTON
5 AMP SWITCHING TRANSISTORS

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2N6350 thru
 2N6353

MAXIMUM RATINGS

PARAMETER	SYMBOL	2N6350	2N6351	2N6352	2N6353	UNIT
Collector-Base1 Voltage	V _{CB1}	80	150	80	150	V
Collector-Emitter Voltage R _{B1E} = 2.2K, R _{B2E} = 100ohms	V _{CER}	80	150	80	150	V
Emitter-Base Voltage	V _{EB1}	12	12	12	12	V
	V _{EB2}	6	6	6	6	V
DC Collector Current	I _C	5	10	5	10	A
Peak Collector Current t _p ≤ 1ms, Duty Cycle ≤ 10%	I _{CM}	10	5	10	5	A
Continuous Operating Base1 Current	I _{B1}	0.5	0.5	0.5	0.5	A
Power Dissipation @ T _C ≤ 100°C		5	5	25	25	W
Linear Derating Factor		.05	.05	.25	.25	W/°C
Operating & Storage Temp. Range		-65°C to 200°C				
Maximum Operating Conditions		See Safe Operating Area Diagrams				



ELECTRICAL CHARACTERISTICS AT 25°C CASE TEMPERATURE (Unless otherwise specified)

PARAMETER	SYMBOL	TEST CONDITION	2N6350/2N6352		2N6351/2N6353		UNIT	
			MIN.	MAX.	MIN.	MAX.		
Collector Cutoff Current	I _{CEV}	V _{CE} = 80V, V _{EB1} = 2V R _{B2E} = 100 ohms R _{B2F} = 100 ohms, T _C = 150°C		1.0			μA	
				1.0			mA	
		V _{CE} = 150V, V _{EB1} = 2V R _{B2E} = 100 ohms, R _{B2F} = 100 ohms, T _C = 150°C				1.0		μA
						1.0		mA
Emitter Cutoff Current	I _{EB1}	V _{EB1} = 12V, I _C = 0, I _{B2} = 0		10		10	μA	
	I _{EB2}	V _{EB2} = 6V, I _{B1} = 0, I _C = 0		10		10	μA	
Collector-Emitter Saturation Voltage	V _{CE(sat)}	I _C = 5A, I _{B1} = 5mA, R _{B2E} = 100		1.5			V	
		I _C = 5A, I _{B1} = 10mA, R _{B2E} = 100				2.5	V	
Collector-Emitter Breakdown Voltage	BV _{CER}	I _C = 25mA, R _{B1E} = 2.2K, R _{B2E} = 100 ohms		80		150	V	
Base-Emitter Voltage	V _{BE1E}	I _C = 5A, V _{CE} = 5V, R _{B2E} = 100		2.5		2.5	V	
DC Forward Current Transfer Ratio	h _{FE}	I _C = 1A, V _{CE} = 5V, R _{B2E} = 1K	2000		1000			
		I _C = 5A, V _{CE} = 5V, R _{B2E} = 100	2000	10,000	1000	10,000		
		I _C = 5A, V _{CE} = 5V, R _{B2E} = 100, T _C = -65°C	400		200			
High Frequency Beta	h _{fe}	I _C = 1A, V _{CE} = 10V, f = 10MHZ	5	5	5	5		
Common Base Output Capacitance	C _{OB1}	V _{CB1} = 10V, I _E = 0, f = 1MHZ		40		40	pf	
Turn-On Time	t _{on1}	I _C = 5A, I _{B1(ON)} = -I _{B1(OFF)} = 10mA		.5			μSEC	
Turn-Off Time	t _{off1}	I _C = 5A, I _{B1(ON)} = -I _{B1(OFF)} = 20mA				.5	μSEC	
Turn-Off Time	t _{off1}	I _C = 5A, I _{B1(ON)} = -I _{B1(OFF)} = 10mA		1.2			μSEC	
		I _C = 5A, I _{B1(ON)} = -I _{B1(OFF)} = 20mA				1.2	μSEC	