

PNP SILICON POWER TRANSISTORS

MEDIUM POWER

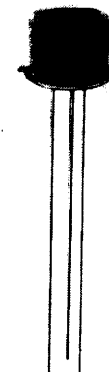
1 AMPERE

FEATURES

HIGH RELIABILITY, MEDIUM POWER
 PLANAR CONSTRUCTION

APPLICATIONS

HIGH SPEED SWITCHING AND
 LINEAR AMPLIFIER APPLICATIONS

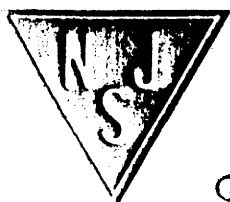


TO-5

ABSOLUTE MAXIMUM RATINGS

		<u>2N3776</u>	<u>2N3777</u>
V_{CB0}	COLLECTOR-BASE VOLTAGE	-80 V	-100 V
V_{CEO}	COLLECTOR-EMITTER VOLTAGE	-80 V	-100 V
V_{EBO}	EMITTER-BASE VOLTAGE	- 8 V	- 8 V
I_C	CONTINUOUS COLLECTOR CURRENT	- 1 A	- 1 A
I_B	CONTINUOUS BASE CURRENT	- 0.5 A	- 0.5 A
T_J	OPERATING JUNCTION TEMPERATURE	_____ -65°C to +200°C _____	
T_{stg}	STORAGE TEMPERATURE	_____ -65°C to +200°C _____	
$R_{\theta JC}$	THERMAL RESISTANCE, JUNCTION TO CASE	20°C/W	
P_D	POWER DISSIPATION (100°C)	5 W	

3-83-200



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POWER TRANSISTORS
2N3776 2N3777

ELECTRICAL CHARACTERISTICS ($T_C = 25^\circ\text{C}$ UNLESS OTHERWISE NOTED)

CHARACTERISTICS	SYMBOL	MIN.	MAX.	UNITS
COLLECTOR-EMITTER SUSTAINING VOLTAGE * ($I_C = -50\text{mA}$)	$V_{CE0(sus)}$	- 80 - 100		V V
COLLECTOR CUTOFF CURRENT ($V_{CE} = \text{RATED } V_{CB}, V_{BE} = 1.5\text{V}$) ($V_{CE} = \text{RATED } V_{CB}, V_{BE} = 1.5\text{V}, T_C = 150^\circ\text{C}$)	I_{CEX}		- 0.5 - 5.0	mA mA
EMITTER-BASE CUTOFF CURRENT ($V_{EB} = -8.0\text{V}$)	I_{EB0}		- 0.5	mA
DC CURRENT GAIN * ($I_C = -200\text{mA}, V_{CE} = -2\text{V}$)	h_{FE}	20	60	
COLLECTOR-EMITTER SATURATION VOLTAGE * ($I_C = -200\text{mA}, I_B = -20\text{mA}$)	$V_{CE(Sat)}$		- 0.2	V
BASE-EMITTER SATURATION VOLTAGE ($I_C = -200\text{mA}, I_B = -20\text{mA}$)	$V_{BE(Sat)}$		- 1.2	V
PULSE TIME ON ($t_r + t_d$) ($I_C = -200\text{mA}, I_{B1} = -I_{B2} = -20\text{mA}$)	T_{ON}		3.0	μsec
PULSE TIME OFF ($t_s + t_f$) ($I_C = -200\text{mA}, I_{B1} = -I_{B2} = -20\text{mA}$)	T_{OFF}		3.0	μsec
MAGNITUDE OF SMALL SIGNAL GAIN ($V_{CE} = -10\text{V}, I_C = -50\text{mA}, f = 1\text{MHz}$)	$[h_{fe}]$	1.0		
For Typical Curves see SDT69501 thru SDT69503				