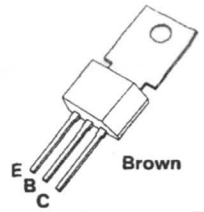
New Jersey Semi-Conductor Products, Inc.

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

TELEPHONE: (973) 376-2922
(212) 227-6005
FAX: (973) 376-8960

Silicon Power Tab Transistor

NPN
D40P



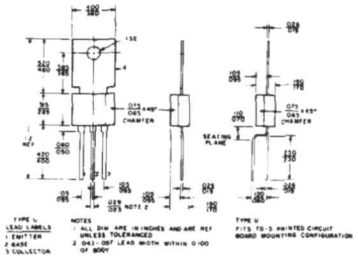
Leads can be formed to a TO-5 Pin Configuration.

FEATURING:

- ***POWER-GLAS*** Passivation
- High Free Air Power Dissipation
- Hard Solder Mountdown
- Fast Switching
- Brown for NPN

absolute maximum ratings: (25°C unless otherwise specified)

		D40P1	D40P3	D40P5	
Voltages					
Collector to Emitter	V_{CEO}	120	180	225	Volts
Emitter to Base	V_{EBO}	7	7	7	Volts
Collector to Base	V_{CBO}	200	250	300	Volts
Current					
Collector (Continous)	I_c		0.5		Amp.
Power Dissipation					
Tab at 25°C			6.25		Watts
Tab at 70°C	P_T		4.0		Watts
Free Air at 50°C			1.33		Watts
Free Air at 50°C (without tab)			1.0		Watts
Thermal Resistance					
Junction to Case	$R\theta_{JC}$		20		°C/W
Junction to Ambient	$R\theta_{JA}$				
(with tab)			75		°C/W
(without tab)			100		°C/W
Temperature					
Operating	T_j		−55 to +150		°C
Storage	T_{stg}		−55 to +150		°C
Lead Soldering, 1/16" ± 1/32" From case for 10 sec. max.	T_L		+260		°C



An insulating hardware kit (mica washer, nylon shoulder washer, and solder lug) is available at an additional cost upon request. Kit #138B8189P11.

Dimensional Outlines

electrical characteristics: (25°C unless otherwise specified)

		Min.	Max.	Units
Forward Current Transfer Ratio				
(I_C = 80 mA, V_{CE} = 10V)	h_{FE}	40	—	
(I_C = 2 mA, V_{CE} = 10V)		20	—	
Collector to Emitter Voltage				
(I_C = 1.0 mA, I_b = 0)	V_{CEO}			
D40P1		120	—	Volts
D40P3		180	—	Volts
D40P5		225	—	Volts
Collector Cutoff Current				
(Rated V_{CEO})	I_{CBO}	—	10	μA
Emitter Cutoff Current				
(V_{EBO} = 7V)	I_{EBO}	—	10	μA
Collector Saturation Voltage				
(I_C = 100 mA, I_B = 10 mA)	V_{CE} (SAT)	—	1	Volt
Base Saturation Voltage				
(I_C = 100 mA, I_B = 10 mA)	V_{BE} (SAT)	—	1.5	Volt
Gain Bandwidth Product				
(I_C = 80 mA, V_{CE} = 10V)	f_T	50	—	MHz
Storage Time				
(I_C (ON) = 80 mA, I_B (ON) = 8 mA I_B (OFF) = 8 mA)	t_S	—	2.5	μsec
Collector Capacitance				
(V_{CB} = 10V, I_E = 0)	C_{CB}	—	6	pf