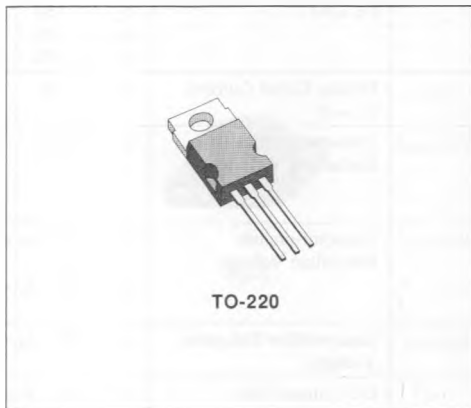


## PNP LOW VOLTAGE TRANSISTOR

PRELIMINARY DATA

- LOW COLLECTOR SATURATION VOLTAGE
- EXCELLENT LINEARITY

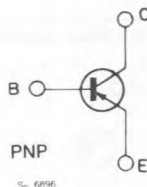


### DESCRIPTION

The D45H1, D45H2, D45H4, D45H5, D45H7, D45H8 and D45H10 are silicon multi-epitaxial planar PNP transistors in TO-220 plastic package, intended for switching and general purpose applications.

The complementary NPN types are the D44H1, D44H2, D44H4, D44H5, D44H7, D44H8 and D44H10 respectively.

### INTERNAL SCHEMATIC DIAGRAM



### ABSOLUTE MAXIMUM RATINGS

Symbol	Parameter	Value				Unit
		D45H1 D45H2	D45H4 D45H5	D45H7 D45H8	D45H10	
$V_{CBO}$	Collector-base Voltage ( $I_E = 0$ )	- 30	- 45	- 60	- 80	V
$V_{CEO}$	Collector-emitter Voltage ( $I_B = 0$ )	- 30	- 45	- 60	- 80	V
$V_{EBO}$	Emitter-base Voltage ( $I_C = 0$ )	- 5				V
$I_C$	Collector Current	- 10				A
$I_{CM}$	Collector Peak Current	- 20				A
$I_B$	Base Current	- 5				mA
$P_{tot}$	Total Dissipation at $T_C < 25^\circ\text{C}$	50				W
$T_{stg}$	Storage Temperature	- 55 to 150				$^\circ\text{C}$
$T_j$	Max. Operating Junction Temperature	150				$^\circ\text{C}$

## THERMAL DATA

$R_{th(j-case)}$	Thermal Resistance Junction-case	max	2.5	°C/W
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ELECTRICAL CHARACTERISTICS ( $T_{case} = 25^{\circ}C$  unless otherwise specified)

Symbol	Parameter	Test Conditions	Min.	Typ.	Max.	Unit
$I_{CBO}$	Collector Cutoff Current ( $I_E = 0$ )	$V_{CB} = -30V$ for D45H1/2 $V_{CB} = -45V$ for D45H4/5 $V_{CB} = -60V$ for D45H7/8 $V_{CB} = -80V$ for D45H10			-10 -10 -10 -10	$\mu A$ $\mu A$ $\mu A$ $\mu A$
$I_{EBO}$	Emitter Cutoff Current ( $I_C = 0$ )	$V_{EB} = -5V$			-0.1	mA
$V_{CE(sus)}^*$	Collector-emitter Sustaining Voltage	$I_C = -0.1A$ for D45H1/2 for D45H4/5 for D45H7/8 for D45H10	-30 -45 -60 -80			V V V V
$V_{CE(sat)}^*$	Collector-emitter Saturation Voltage	$I_C = -8A$ $I_B = -0.4A$ for D45H2/5/8 $I_C = -8A$ $I_B = -0.8A$ for D45H1/4/7/10			-1 -1	V V
$V_{BE(sat)}^*$	Base-emitter Saturation Voltage	$I_C = -8A$ $I_B = -0.8A$			-1.5	V
$h_{FE}^*$	DC Current Gain	$I_C = -2A$ $V_{CE} = -1V$ for D45H2/5/8 for D45H1/4/7/10 $I_C = -4A$ $V_{CE} = -1V$ for D45H2/5/8 for D45H1/4/7/10	60 35 40 20	120 60 70 50		

\* Pulsed : Pulse duration = 300 $\mu s$ , duty cycle = 1.5%.