SGS-THOMSON MICROELECTRONICS

D45H5
D45H8

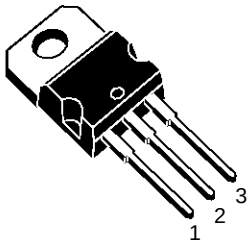
SILICON PNP TRANSISTOR

- SGS-THOMSON PREFERRED SALESTYPES

DESCRIPTION

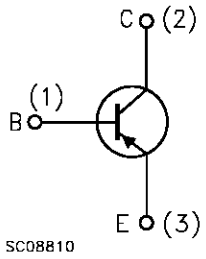
The D45H5, and D45H8 are silicon multiepitaxial planar PNP transistors mounted in Jedec TO-220 plastic package.

They are inteded for various switching and general purpose applications.



TO-220

INTERNAL SCHEMATIC DIAGRAM



ABSOLUTE MAXIMUM RATINGS

Symbol	Parameter	Value		Unit
		D45H5	D45H8	
V_{CBO}	Collector-Base Voltage (I_E = 0)	-45	-60	V
V_{CEO}	Collector-Emitter Voltage (I_B = 0)	-45	-60	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		A
P_{tot}	Total Dissipation at $T_c \leq 25\ ^oC$	50		W
T_{stg}	Storage Temperature	-65 to 150		^oC
T_j	Max. Operating Junction Temperature	150		^oC

THERMAL DATA

$R_{thj\text{-}case}$	Thermal Resistance Junction-case	Max	2.5	$^oC/W$

ELECTRICAL CHARACTERISTICS (T_{case} = 25 ^oC unless otherwise specified)

Symbol	Parameter	Test Conditions	Min.	Typ.	Max.	Unit
I_{CBO}	Collector Cut-off Current (I_E = 0)	V_{CB} = rated V_{CEO}			-10	µA
I_{EBO}	Emitter Cut-off Current (I_C = 0)	V_{EB} = -5V			-100	µA
$V_{CEO(sus)}$*	Collector-Emitter Sustaining Voltage	I_C = -100 mA for **D45H5** for **D45H8**	 -45 -60			 V V
$V_{CE(sat)}$*	Collector-Emitter Saturation Voltage	I_C = -8 A I_B = -0.4 A I_C = -8 A I_B = -0.8 A			-1 -1	V V
$V_{BE(sat)}$*	Base-Emitter Saturation Voltage	I_C = -8 A I_B = -0.8 A			-1.5	V
h_{FE}*	DC Current Gain	I_C = -2 A V_{CE} = -1 V I_C = -4 A V_{CE} = -1 V	60 40	120 70		

* Pulsed: Pulse duration = 300 µs, duty cycle ≤ 2 %

TO-220 MECHANICAL DATA

DIM.	mm			inch		
	MIN.	TYP.	MAX.	MIN.	TYP.	MAX.
A	4.40		4.60	0.173		0.181
C	1.23		1.32	0.048		0.051
D	2.40		2.72	0.094		0.107
D1		1.27			0.050	
E	0.49		0.70	0.019		0.027
F	0.61		0.88	0.024		0.034
F1	1.14		1.70	0.044		0.067
F2	1.14		1.70	0.044		0.067
G	4.95		5.15	0.194		0.203
G1	2.4		2.7	0.094		0.106
H2	10.0		10.40	0.393		0.409
L2		16.4			0.645	
L4	13.0		14.0	0.511		0.551
L5	2.65		2.95	0.104		0.116
L6	15.25		15.75	0.600		0.620
L7	6.2		6.6	0.244		0.260
L9	3.5		3.93	0.137		0.154
DIA.	3.75		3.85	0.147		0.151