

Silicon PNP Power Transistors

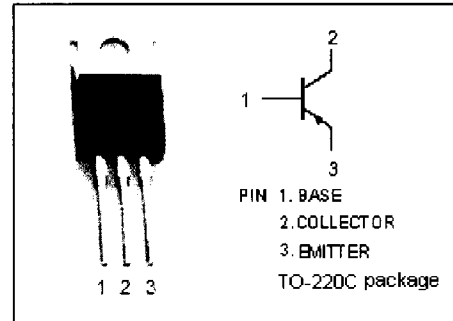
D45H Series

DESCRIPTION

- Low Saturation Voltage
- Fast Switching Speeds
- Complement to Type D44H Series

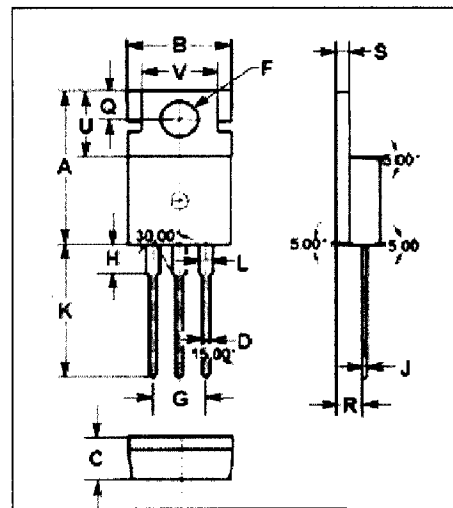
APPLICATIONS

- Designed for general purpose power amplification and switching such as output or driver stages in applications such as switching regulators, converters and power amplifier.



ABSOLUTE MAXIMUM RATINGS (T_a=25°C)

SYMBOL	PARAMETER	VALUE	UNIT
V _{CEO}	Collector-Emitter Voltage	D45H8	-60
		D45H10,11	-80
V _{EBO}	Emitter-Base Voltage	-5	V
I _C	Collector Current-Continuous	-10	A
I _{CM}	Collector Current-Peak	-20	A
P _C	Collector Power Dissipation @T _c =25°C	-50	W
T _j	Junction Temperature	150	°C
T _{stg}	Storage Temperature Range	-55~150	°C



DIM	mm	
	MIN	MAX
A	15.70	15.90
B	9.90	10.10
C	4.20	4.40
D	0.70	0.90
F	3.40	3.60
G	4.98	5.18
H	2.70	2.90
J	0.44	0.46
K	13.20	13.40
L	1.10	1.30
Q	2.70	2.90
R	2.50	2.70
S	1.29	1.31
U	6.45	6.65
V	8.66	8.86

THERMAL CHARACTERISTICS

SYMBOL	PARAMETER	MAX	UNIT
R _{th j-c}	Thermal Resistance, Junction to Case	2.5	°C/W
R _{th j-a}	Thermal Resistance, Junction to Ambient	75	°C/W

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ELECTRICAL CHARACTERISTICS

$T_c=25^\circ\text{C}$ unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP	MAX	UNIT
$V_{CE(sat)}$	Collector-Emitter Saturation Voltage	D45H10			-1	V
		D45H8,11				
$V_{BE(sat)}$	Base-Emitter Saturation Voltage	$I_C = -8\text{A}; I_B = -0.8\text{A}$			-1.5	V
I_{CES}	Collector Cutoff Current	$V_{CE} = \text{Rated } V_{CEO};$			-10	μA
I_{EBO}	Emitter Cutoff Current	$V_{EB} = -5\text{V}; I_C = 0$			-100	μA
h_{FE-1}	DC Current Gain	D45H10	$I_C = -2\text{A}; V_{CE} = -1\text{V}$			
		D45H8,11				
h_{FE-2}	DC Current Gain	D45H10	$I_C = -4\text{A}; V_{CE} = -1\text{V}$			
		D45H8,11				
C_{OB}	Output Capacitance	$V_{CB} = -10\text{V}; f = 0.1\text{MHz}$		130		pF
f_T	Current-Gain—Bandwidth Product	$I_C = -0.5\text{A}; V_{CE} = -10\text{V}; f_{test} = 20\text{MHz}$		50		MHz

Switching Times

t_s	Storage Time	$I_C = -5\text{A}; I_{B1} = -I_{B2} = -0.5\text{A}$ $V_{CC} = 20\text{V}$		0.5		μs
t_f	Fall Time			0.14		μs