

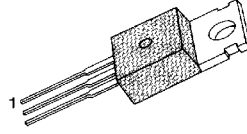
### GENERAL PURPOSE POWER APPLICATION AND SWITCHING

- Low Collector-Emitter Saturation Voltage:  
 $V_{CE(sat)} = -1V (MAX) @ -8A$
- Fast Switching Speeds

### ABSOLUTE MAXIMUM RATINGS

Characteristic	Symbol	Rating	Unit
Collector-Emitter Voltage : D45H 1,2	$V_{CEO}$	-30	V
: D45H 4,5		-45	V
: D45H 7,8		-60	V
: D45H 10,11		-80	V
Emitter Base Voltage	$V_{EBO}$	-5	V
Collector Current (DC)	$I_C$	-10	A
*Collector Current (Pulse)	$I_C$	-20	A
Collector Dissipation ( $T_C=25^\circ C$ )	$P_C$	50	W
Collector Dissipation ( $T_A=25^\circ C$ )	$P_C$	1.67	W
Junction Temperature	$T_J$	150	$^\circ C$
Storage Temperature	$T_{STG}$	-55 ~ 150	$^\circ C$

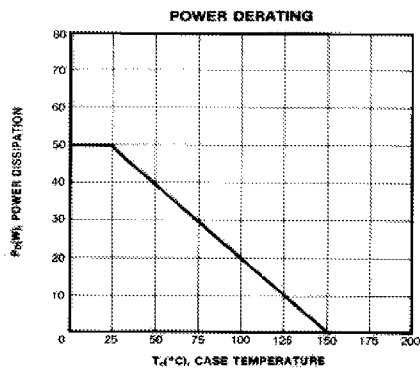
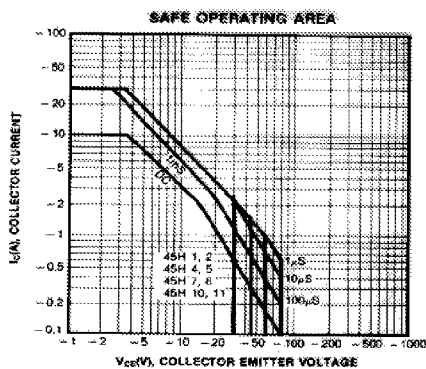
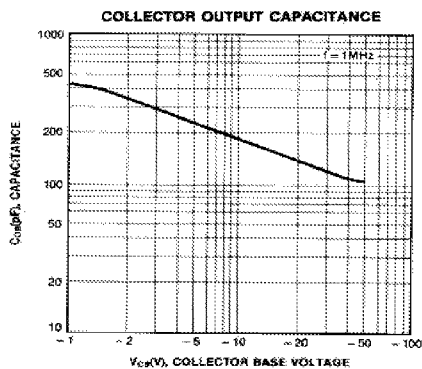
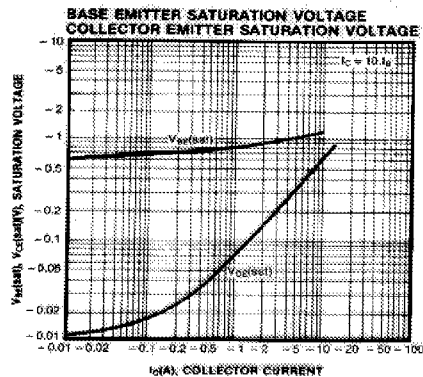
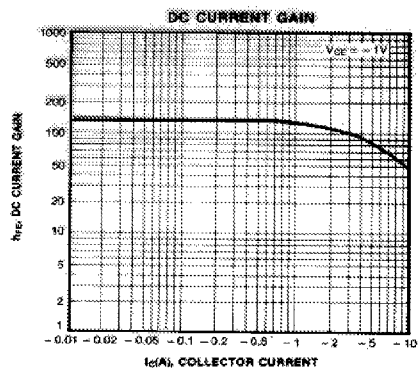
TO-220



1.Base 2.Collector 3.Emitter

### ELECTRICAL CHARACTERISTICS ( $T_C=25^\circ C$ )

Characteristic	Symbol	Test Conditions	Min	Typ	Max	Unit
Collector Cutoff Current	$I_{CES}$	$V_{CE} = \text{Rated } V_{CEO}, V_{EB} = 0$			-10	$\mu A$
Emitter Cutoff Current	$I_{EBO}$	$V_{EB} = -5V, I_C = 0$			-100	$\mu A$
* DC Current Gain : D45H 1,4,7,10	$h_{FE1}$	$V_{CE} = -1V, I_C = -2A$	35			
: D45H 2,5,8,11			60			
: D45H 1, 4, 7, 10	$h_{FE2}$	$V_{CE} = -1V, I_C = -4A$	20			
: D45H 2, 5, 8, 11			40			-1
* Collector Emitter Saturation Voltage	$V_{CE(sat)}$	$I_C = -8A, I_B = -0.8A$			-1	V
: D45H 1, 4, 7 10		$I_C = -8A, I_B = -0.4A$			-1.5	V
: D45H 2, 5, 8, 11		$I_C = -8A, I_B = -0.8A$		40		MHz
* Base Emitter Saturation Voltage	$V_{BE (sat)}$	$V_{CE} = -10V, I_C = -0.5A$		230		pF
Current Gain Bandwidth Product	$f_T$	$V_{CB} = -10V, f = 1MHz$		135		ns
Output Capacitance	$C_{OB}$	$I_C = -5A, I_{B1} = -0.5A$		500		ns
Turn On Time	$t_{ON}$	$I_{B1} = I_{B2} = -0.5A$		100		ns
Storage Time	$t_{STG}$					
Fall Time	$t_F$					



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