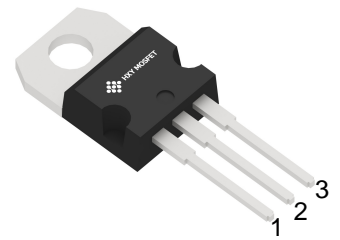




## Features

- Medium Power Complementary Silicon Transistors

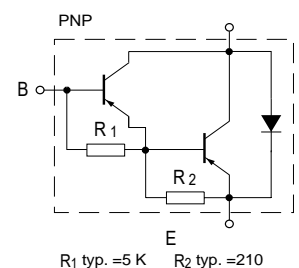


## Maximum Ratings (Ta=25 unless otherwise noted)

Symbol	Parameter	Value	Unit
$V_{CBO}$	Collector-Base Voltage	-100	V
$V_{CEO}$	Collector-Emitter Voltage	-100	V
$V_{EBO}$	Emitter-Base Voltage	-5	V
$I_C$	Collector Current	-5	A
$P_C$	Collector Power Dissipation	2	W
$R_{\theta JA}$	Thermal Resistance from Junction to Ambient	62.5	°C/W
$T_J, T_{stg}$	Operation Junction and Storage Temperature Range	-55~+150	°C

### TO-220S

- 1.BASE
- 2.COLLECTOR
- 3.EMITTER

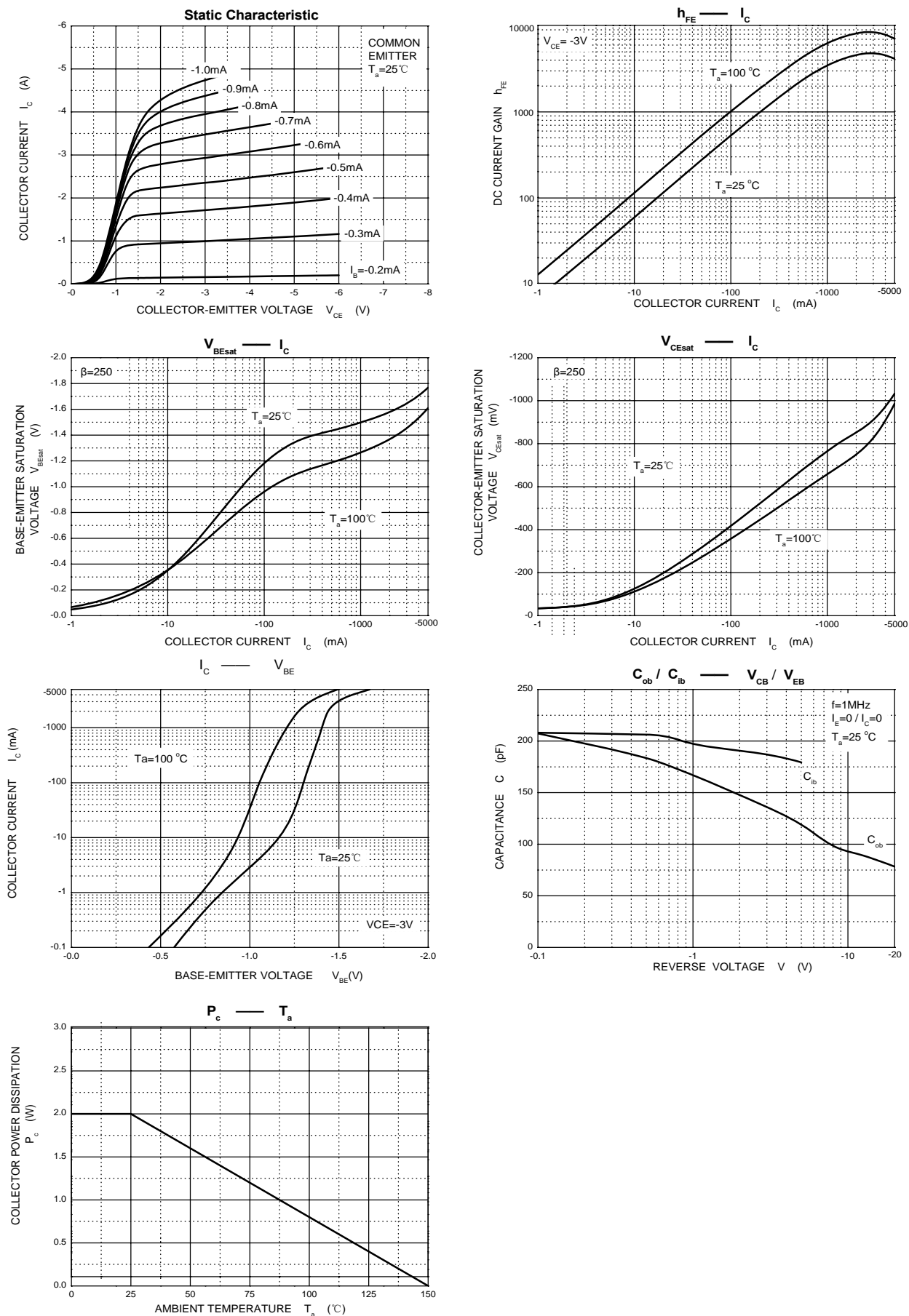


## Electrical Characteristics (Ta=25 unless otherwise specified)

Parameter	Symbol	Test conditions	Min	Max	Unit
Collector-base breakdown voltage	$V_{(BR)CBO}$	$I_C = -1mA, I_E = 0$	-100		V
Collector-emitter breakdown voltage	$V_{CEO(SUS)}$	$I_C = -30mA, I_B = 0$	-100		V
Collector cut-off current	$I_{CBO}$	$V_{CB} = -100V, I_E = 0$		-0.2	mA
Collector cut-off current	$I_{CEO}$	$V_{CE} = -50V, I_B = 0$		-0.5	mA
Emitter cut-off current	$I_{EBO}$	$V_{EB} = -5V, I_C = 0$		-2	mA
DC current gain	$h_{FE(1)}$	$V_{CE} = -3V, I_C = -0.5A$	1000		
	$h_{FE(2)}$	$V_{CE} = -3V, I_C = -3A$	1000	12000	
Collector-emitter saturation voltage	$V_{CE(sat)}$	$I_C = -3A, I_B = -12mA$ $I_C = -5A, I_B = -20mA$		-2 -4	V
Base-emitter voltage	$V_{BE}$	$V_{CE} = -3V, I_C = -3A$		-2.5	V
Output Capacitance	$C_{ob}$	$V_{CB} = -10V, I_E = 0, f = 0.1MHz$		300	pF

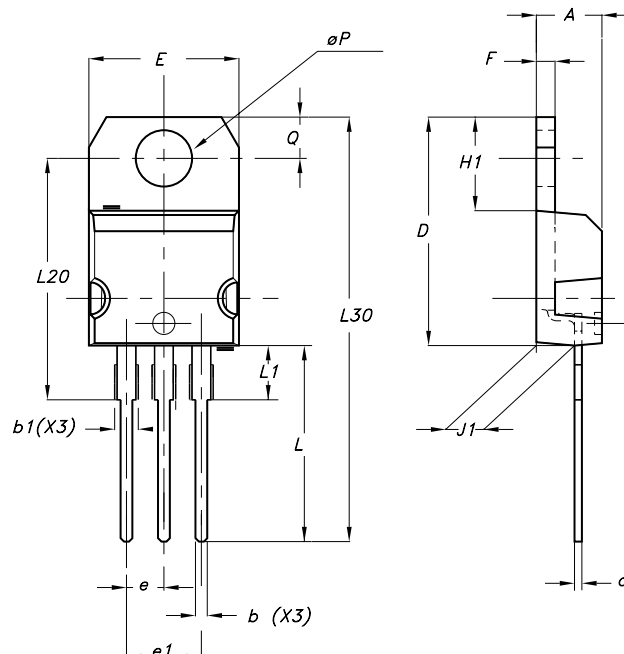


## Typical Characteristics





## Package Information TO-220S



DIM.	mm.			inch		
	MIN.	TYP	MAX.	MIN.	TYP.	MAX.
A	4.40		4.60	0.173		0.181
b	0.61		0.88	0.024		0.034
b1	1.15		1.70	0.045		0.066
c	0.49		0.70	0.019		0.027
D	15.25		15.75	0.60		0.620
E	10		10.40	0.393		0.409
e	2.40		2.70	0.094		0.106
e1	4.95		5.15	0.194		0.202
F	1.23		1.32	0.048		0.052
H1	6.20		6.60	0.244		0.256
J1	2.40		2.72	0.094		0.107
L	13		14	0.511		0.551
L1	3.50		3.93	0.137		0.154
L20		16.40			0.645	
L30		28.90			1.137	
øP	3.75		3.85	0.147		0.151
Q	2.65		2.95	0.104		0.116



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