



EB SERIES TRANSISTORS

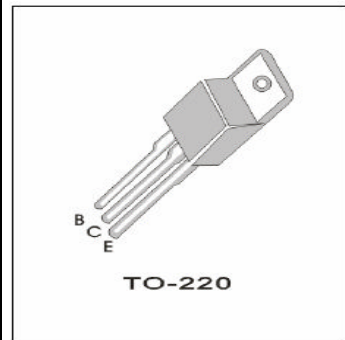
EB13005

- **FEATURES:** ①HIGH VOLTAGE CAPABILITY ②HIGH SPEED SWITCHING ③WIDE SOA
- **APPLICATION:** ①FLUORESCENT LAMP ②ELECTRONIC BALLAST

● **Absolute Maximum Ratings (Tc=25°C)**

TO-220 NPN

PARAMETER	SYMBOL	VALUE	UNIT
Collector-Base Voltage	V _{CB0}	700	V
Collector-Emitter Voltage	V _{CEO}	400	V
Emitter-Base Voltage	V _{EBO}	9	V
Collector Current	I _c	5.0	A
Total Power Dissipation	P _c	75	W
Junction Temperature	T _j	150	°C
Storage Temperature	T _{stg}	-65-150	°C



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● **Electronic Characteristics (Tc=25°C)**

CHARACTERISTICS	SYMBOL	TEST CONDITION	MIN	MAX	UNIT
Collector-Base Cutoff Current	I _{CB0}	V _{CB} =700v		100	μA
Collector-Emitter Cutoff Current	I _{CEO}	V _{CE} =400v		250	μA
Collector-Emitter Voltage	V _{CEO}	I _c =10mA I _B =0	400		V
Emitter-Base Voltage	V _{EBO}	I _E =1mA I _C =0	9		V
Collector-Emitter Saturation Voltage	V _{cesat}	I _c =1A I _B =0.2A		0.5	V
		I _c =4A I _B =1A		1.5	V
Base-Emitter Saturation Voltage	V _{besat}	I _c =1A I _B =0.2A		1.5	V
DC Current Gain	HFE	V _{CE} =5v I _c =10mA	7		
		V _{CE} =5v I _c =1A	10	40	
		V _{CE} =5v I _c =4A	5		
Storage Time	T _s	V _{CC} =5V	2.0	4.0	μS
Falling Time	T _f	I _c =0.5A		1.0	μS

● **CLASSIFICATION OF HFE AND TS**

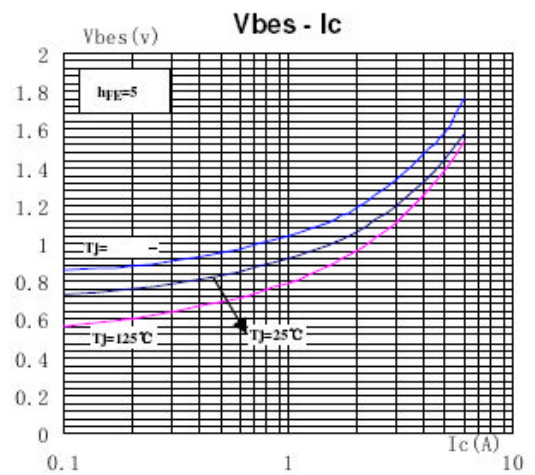
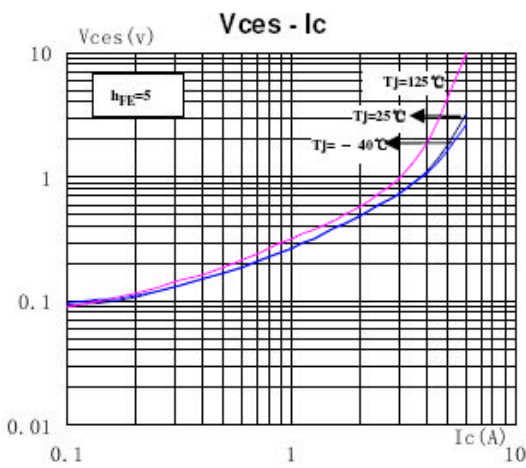
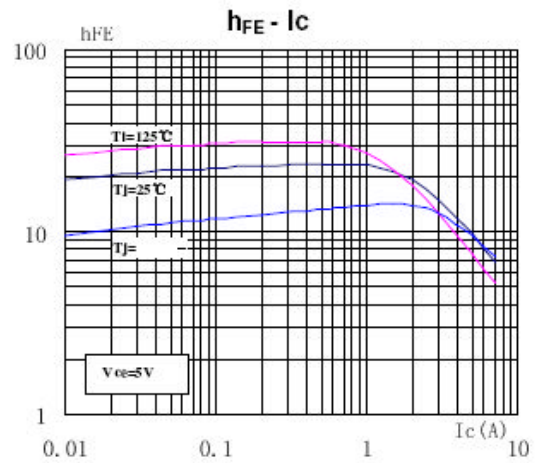
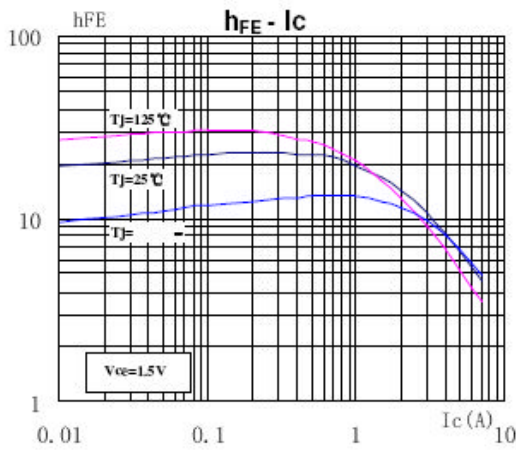
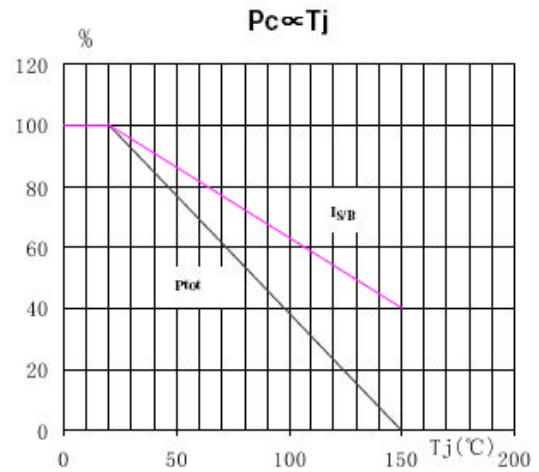
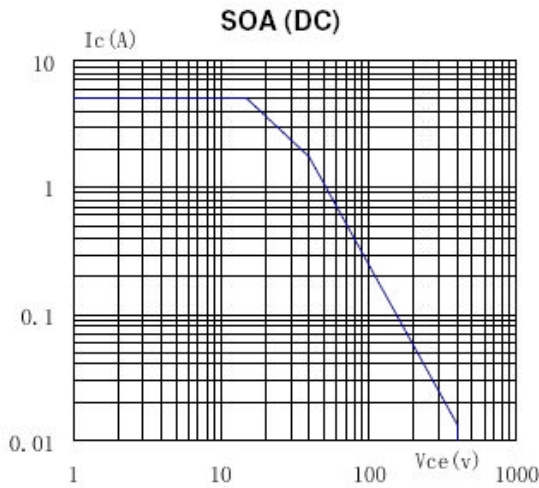
HFE	10-15	15-20	20-25	25-30
TS	2.0-2.5	2.5-3.0	3.0-3.5	3.5-4.0



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TO-220 MECHANICAL DATA

SYMBOL	Min	Nom	Max	SYMBOL	Min	Nom	Max
A	3.5	4.5	5.0	L	12.5	13.5	14.5
B	1.25	1.35	1.5	L1	2.5	3.37	4.5
B1	0.75	0.85	0.955	D1	5.9	6.5	7.1
b	0.6			ϕb			1.2
c	0.35	0.43	0.55	Q	1.5	2.5	3.5
D	14.0	15.5	16.5	Q1	2.0	2.6	3.5
E	9.0	10.0	11.0	Z	3.0	3.8	4.5
e		2.54					

