

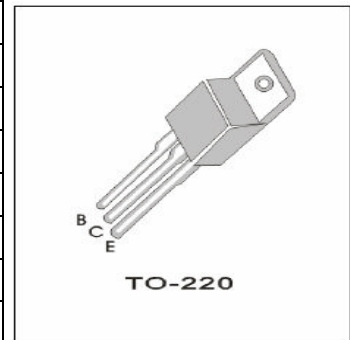
**EB SERIES TRANSISTORS****EB13005**

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

● **Absolute Maximum Ratings (Tc=25℃)**

TO-220 NPN

PARAMETER	SYMBOL	VALUE	UNIT
Collector–Base Voltage	V_{CBO}	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	℃
Storage Temperature	T_{stg}	-65-150	℃

● **Electronic Characteristics (Tc=25℃)**

CHARACTERISTICS	SYMBOL	TEST CONDITION	MIN	MAX	UNIT
Collector–Base Cutoff Current	I_{CBO}	$V_{CB}=700v$		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	$V_{CC}=5V$ $I_C=0.5A$	2.0	4.0	μS
Falling Time	T_f			1.0	μS

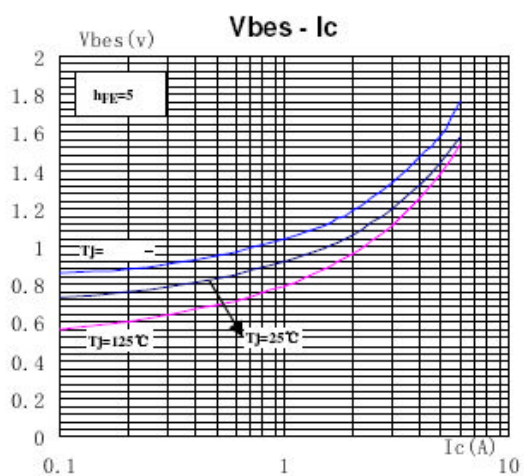
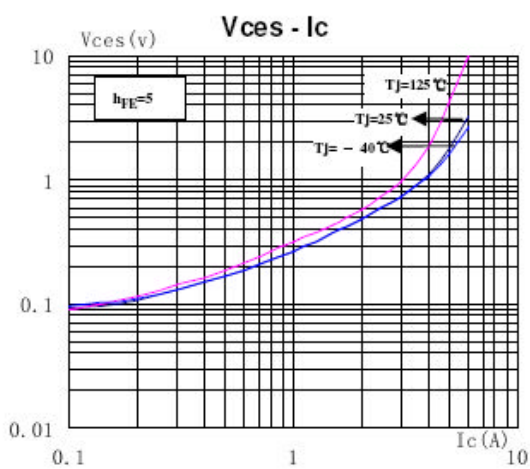
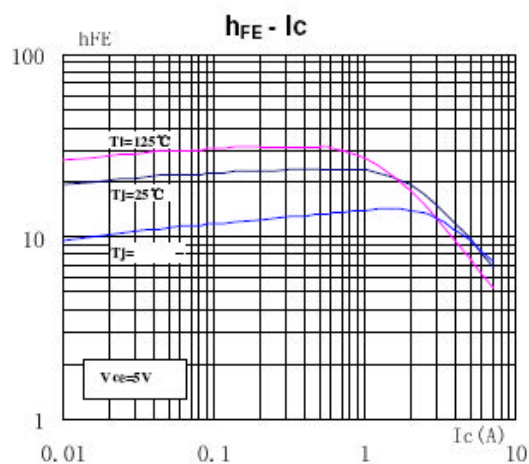
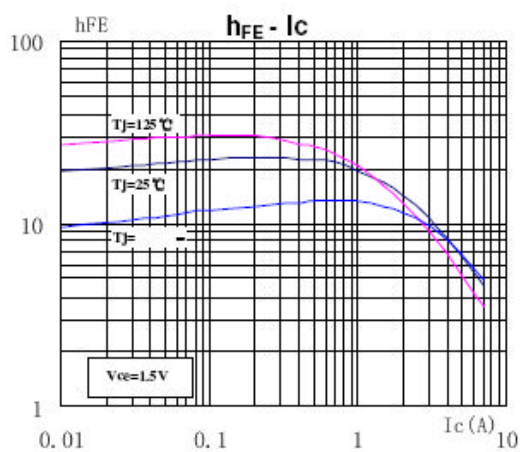
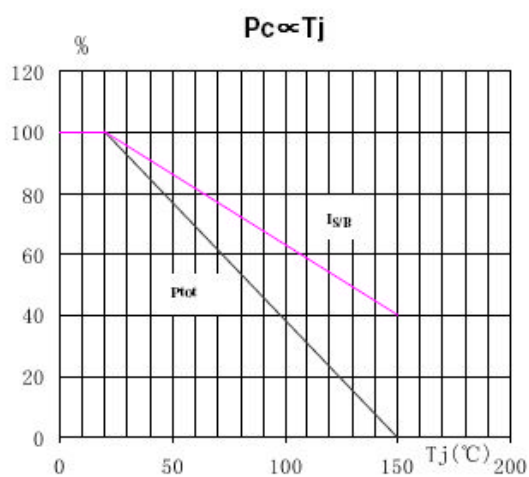
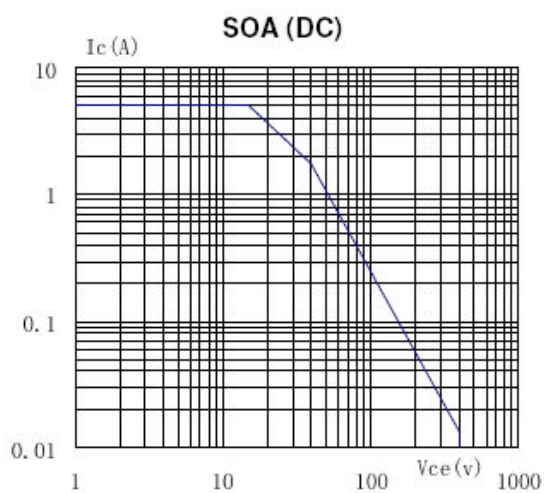
● **CLASSIFICATION OF HFE AND TS**

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



EB SERIES TRANSISTORS

EB13005





EB SERIES TRANSISTORS

EB13005

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					

