

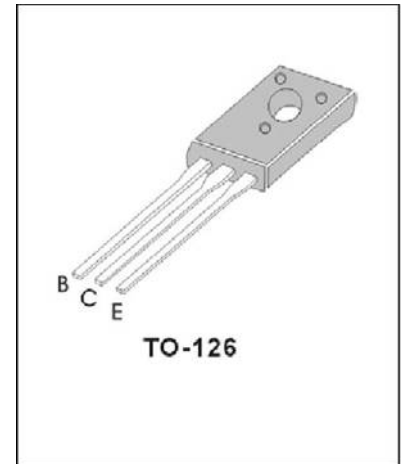


KF13003A

HIGH VOLTAGE FAST-SWITCHING NPN POWER TRANSISTOR

- FEATURES:**
- High Voltage Capability
 - High Speed Switching
 - Low Spread Of Dynamic Parameters
 - Minimum Lot-TO-Lot Spread For Reliable Operation

- APPLICATIONS:**
- Electronic Ballasts For Fluorescent Lighting
 - Switch Mode Power Supplies



ABSOLUTE MAXIMUM RATINGS

Parameter	Symbol	Value	Unit
Collector-Base Voltage	V_{CBO}	700	V
Collector-Emitter Voltage	V_{CEO}	410	V
Emitter -Base Voltage	V_{EBO}	9	V
Collector Current	I_C	1.5	A
Total Power Dissipation	P_C	40	W
Storage Temperature	T_{stg}	-65~150	°C
Junction Temperature	T_j	150	°C

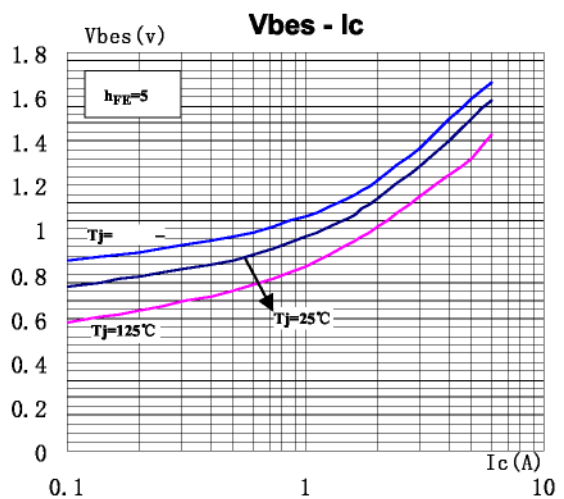
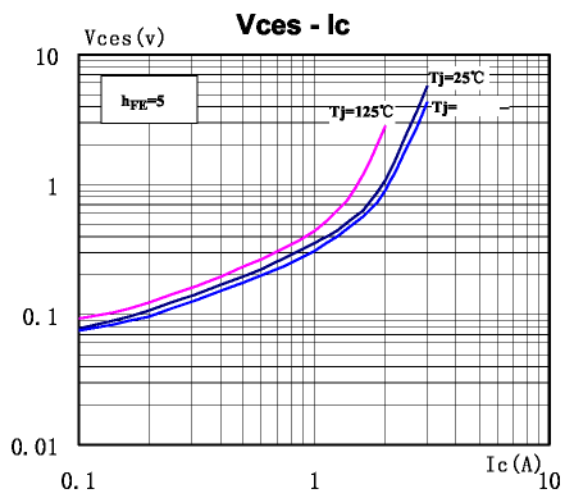
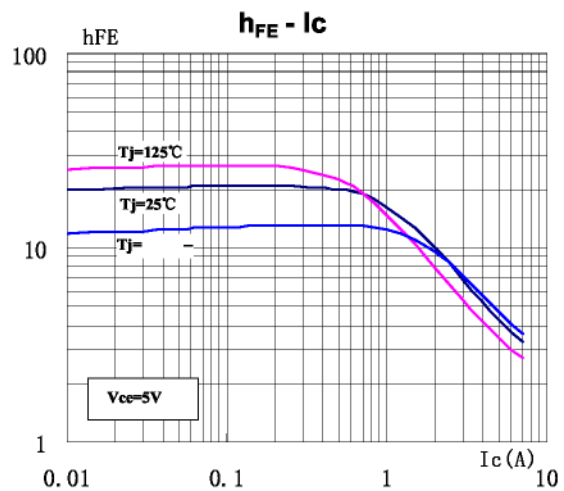
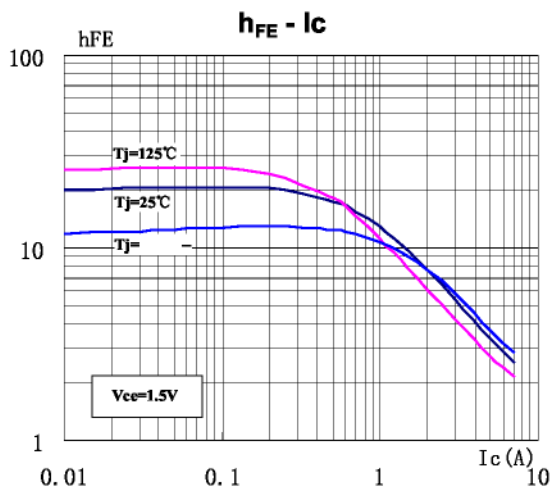
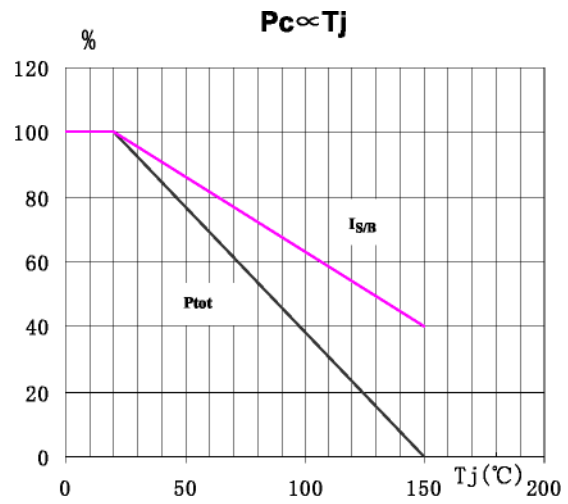
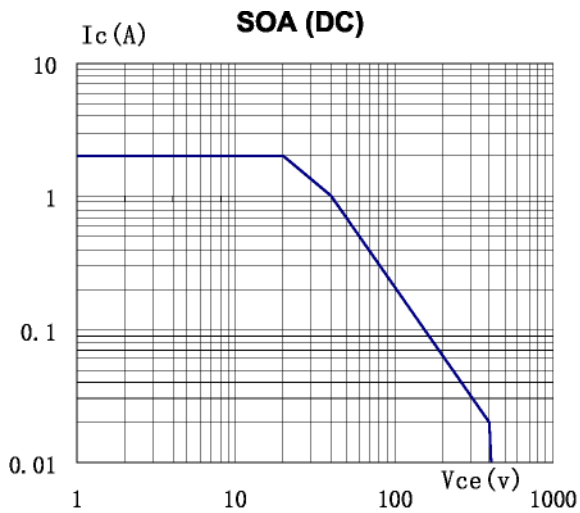
ELECTRICAL CHARACTERISTICS($T_j=25^{\circ}\text{C}$ Unless OtherWise Specified)

Parameter	Symbol	Test Conditons	Min	Max	Unit
Collector-Base Breakdown Voltage	BV_{CBO}	$I_c=1\text{mA}, I_e=0$	700		V
Collector-Emitter Breakdown Voltage	BV_{CEO}	$I_c=10\text{mA}, I_b=0$	410		V
Emitter-Base Breakdown Voltage	BV_{EBO}	$I_e=1\text{mA}, I_c=0$	9		V
Collector-Base Cutoff Current	I_{CBO}	$V_{cb}=700\text{V}, I_e=0$		10	μA
Collector-Emitter Cutoff Current	I_{CEO}	$V_{ce}=410\text{V}, I_b=0$		20	μA
Emitter -Base Cutoff Current	I_{EBO}	$V_{eb}=9\text{V}, I_c=0$		20	μA
DC Current Gain	$hFE(1)$	$V_{ce}=10\text{V}, I_c=100\text{mA}$	10	40	
DC Current Gain	$hFE(2)$	$V_{ce}=5\text{V}, I_c=1\text{mA}$	9		
Collector-Emitter Saturation Voltage	$V_{CE(sat)}$	$I_c=0.5\text{A}, I_b=0.1\text{A}$		0.4	V
Base-Emitter Saturation Voltage	$V_{BE(sat)}$	$I_c=0.75\text{A}, I_b=0.25\text{A}$		1.2	V
Storage Time	T_S	$V_{cc}=250\text{V}$ $I_c=5I_b$ $I_{b1}=-I_{b2}=0.2\text{A}$	2.0	3.5	μS
Falling Time	T_f			0.8	



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TO-126 MECHANICAL DATA

UNIT: mm

SYMBOL	MIN.	TYP.	MAX.	SYMBOL	MIN.	TYP.	MAX.
A	2.3		2.8	L	15.3		16.5
B	1.0		1.2	L1			2.54
B1	0.8		1.0	∅ P	3.0		3.2
b	0.65		0.88	∅ P1		5.0	
c	0.45		0.60	Q	3.6		4.4
D	10.5		11.1	Q1	0.9		1.5
E	7.2		7.8	R		0.5*	
e		2.29					

