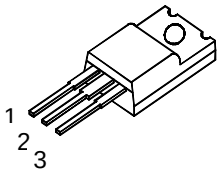
MICRO ELECTRONICS

13007

1. FEATURES:

- ■ High Voltage Capability
- ■ High Speed Switching
- ■ Wide SOA

TO-220F



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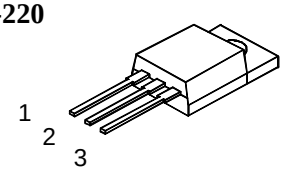

2. APPLICATION:

1:B 2:C 3:E

- ■ Fluorescent Lamp
- ■ Electronic Ballast
- ■ Switch mode power supply
- ■ Eletronic Transformer

3. ABSOLUTE MAXIMUM RATINGS(Ta=25℃,unless otherwise specified)

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	8	A
Collector Power Dissipation	Pc	100	W
Junction Temperature	Tj	150	℃
Storage Temperature	Tstg	-55~150	℃

4. ELECTRICAL CHARACTERISTICS(Ta=25℃ Unless Otherwise Specified)

Parameter	Symbol	Test Condition	Min	Max	Unit
Collector-Base Breakdown Voltage	BV_{CBO}	Ic=1mA IE=0	700		V
Collector-Emitter Breakdown Voltage	BV_{CEO}	Ic=10mA IB=0	400		V
Emitter-Base Breakdown Voltage	BV_{EBO}	IE=1mA Ic=0	9		V
Collector-Base Cutoff Current	I_{CBO}	VcB=680V IE=0		5	uA
Collector-Emitter Cutoff Current	I_{CEO}	VCE=390V IB=0		5	uA
Emitter-Base Cutoff Current	I_{EBO}	VEB=9V Ic=0		5	uA
Collector-Emitter Saturation Voltage	V_{CEsat}	Ic=2A IB=0.4A		1.0	V
		Ic=8A IB=2A		2.5	V
Base-Emitter Saturation Voltage	V_{BEsat}	Ic=5A IB=1A		1.8	V
DC Current Gain	h_{FE}	VCE=5V Ic=2A	15	40	
Falling Time	t_f	I_C=0.5A		0.5	us
Storage Time	t_s	I_{B1}= -I_{B2}=0.1A		8	us
Transition Frequency	f_T	V_{CE}=10V Ic=500mA f=1MHz	5		MHz

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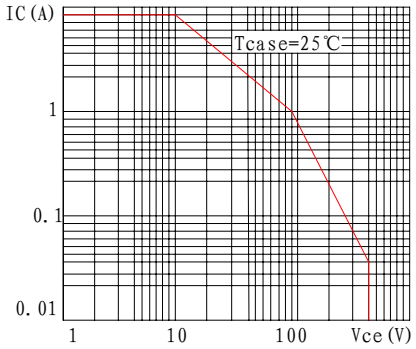
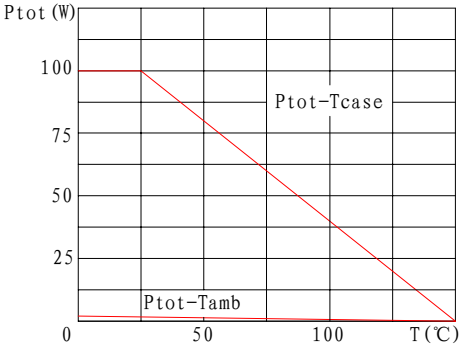
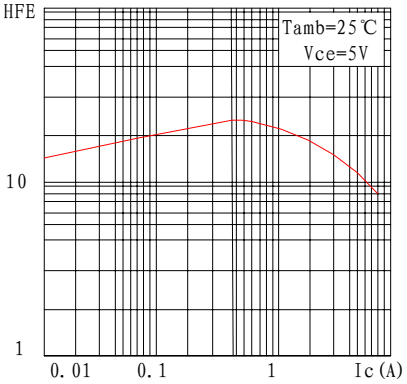
SOA (DC)



Ptot-Tj



HFE-Ic



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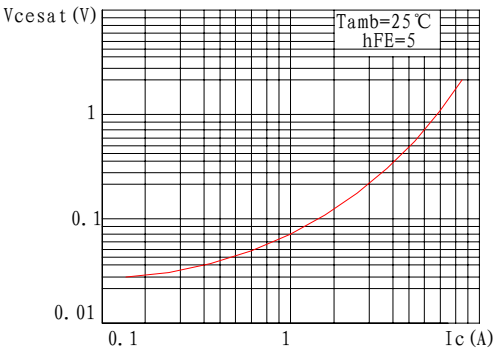

VBEsat-Ic