鼎德丰 DING DE FENG

NPN Silicon Transistor

13007

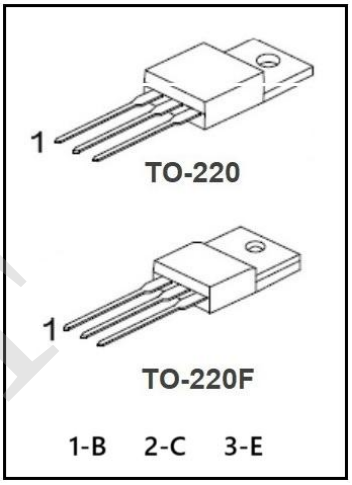
Applications

- energy-saving lamps
- fluorescent lamp electronic ballasts
- other switches and oscillating circuits

Package: TO-220/TO-220F

Maximum Ratings (Ta = 25°)

Parameter	Symbol	Rating		Unit
Collector-base voltage	BV_{CBO}	700		V
Collector-emitter voltage	BV_{CEO}	480		V
Emitter-base voltage	BV_{EBO}	9		V
Collector current	I_{CM}	8		A
Collector Power Dissipation	P_C	TO-220	2	W
		TO-220F	2	
	P_C (Tc = 25°)	TO-220	70	
		TO-220F	40	
Junction Temperature	Tj	150		℃
Storage Temperature	Tstg	-55～+150		℃



Electrical Characteristics（Ta=25℃）

Parameter	Symbol	Test Condition	Min	Typ	Max	Unit
Collector-Base Breakdown Voltage	BV_{CBO}	I_C=0.1mA，I_E=0	700			V
Collector-Emitter Breakdown Voltage	BV_{CEO}	I_C=1mA，I_B=0	480			V
Emitter-Base Breakdown Voltage	BV_{EBO}	I_E=0.1mA，I_C=0	9			V
collector-base cut-off current	I_{CBO}	V_{CB}=670V，I_E=0			1	μA
collector-emitter cut-off current	I_{CEO}	V_{CE}=450V，I_B=0			10	μA
emitter-base cut-off current	I_{EBO}	V_{EB}=9V，I_C=0			1	μA
DC current gain	H_{FE}	V_{CE}=5V，I_C=2A	15		40	
collector-emitter saturation voltage	$V_{CE(SAT)}$	I_C=3A，I_B=700mA			0.6	V
Base-Emitter Saturation Voltage	$V_{BE(SAT)}$	I_C=3A，I_B=700mA			1.5	V
Storage Time	T_S	I_C=500mA	4		8	us
Transition frequency	f_T	V_{CE}=10V，I_C=500mA,	5			MHz

Classification of H_{FE}

Rank	B	C	D	E	F
Range	15-20	20-25	25-30	30-35	35-40