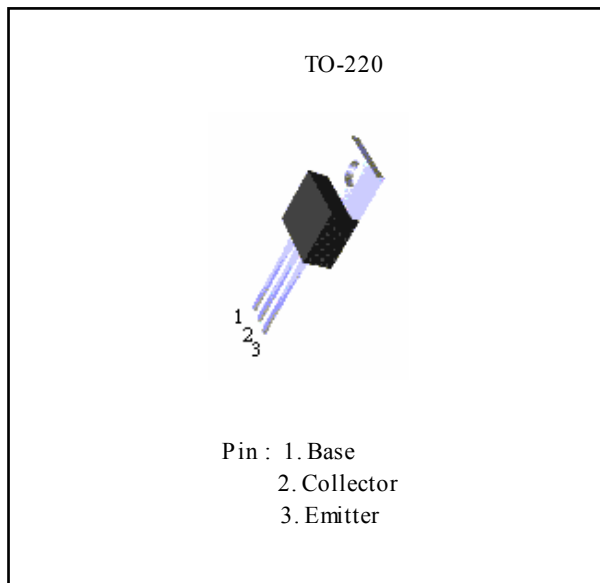


NPN Epitaxial Silicon Transistor

HIGH VOLTAGE SWITCH MODE APPLICATION

- High Speed Switching
- Suitable for Switching Regulator and Motor Control



ABSOLUTE MAXIMUM RATINGS (Ta= 25°C)

Characteristic	Symbol	Rating	Unit
Collector Base Voltage	V _{CBO}	700	V
Collector Emitter Voltage	V _{CEO}	400	V
Emitter Base Voltage	V _{EBO}	9	V
Collector Current (DC)	I _c	8	A
Collector Current (Pulse)	I _c	16	A
Base Current	I _B	4	A
Collector Dissipation	P _c	80	W
Junction Temperature	T _j	150	°C
Storage Temperature	T _{stg}	-65 ~150	°C

ORDERING INFORMATION

Device	Operating Temperature	Package
PJ13007CZ	-20°C ~+85°C	TO-220

ELECTRICAL CHARACTERISTICS(Ta= 25°C)

Characteristic	Symbol	Test Condition	Min	Typ	Max	Unit
*Collector Emitter Sustaining Voltage	V _{CEO(SUS)}	I _c = 10mA, I _B = 0	400			V
Emitter Cutoff Current	I _{EBO}	V _{EB} =9V, I _c =0			1	mA
*DC Current Gain	h _{FE}	V _{CE} =5V, I _c =2A	8		60	
		V _{CE} =5V, I _c =5A	5		30	
*Collector Emitter Saturation Voltage	V _{CE (sat)}	I _c =2A, I _B =0.4A			1	V
		I _c =5A, I _B =1A			2	V
		I _c =8A, I _B =2A			3	V
*Base Emitter Saturation Voltage	V _{BE (sat)}	I _c =2A, I _B =0.4A			1.2	V
		I _c =5A, I _B =1A			1.6	V
Output Capacitance	C _{OB}	V _{CB} =10V, f=0.1MHz		110		pF
Current Gain Bandwidth Product	f _T	V _{CE} =10V, I _c =0.5A	4			MHz
Turn On Time	t _{on}	V _{CC} =125V, I _c =5A			1.6	μ S
Storage Time	t _s	I _{B1} =I _{B2} =1A			3	μ S
Fall Time	t _f				0.7	μ S

- Pulse Test: PW ≤300 μ S, Duty Cycle ≤2 %

TO-220 Unit:mm

