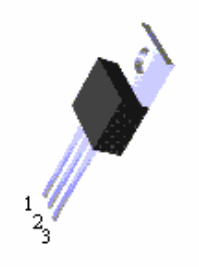
PJ13007

NPN Epitaxial Silicon Transistor

HIGH VOLTAGE SWITCH MODE APPLICATION

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

TO-220



Pin : 1. Base
2. Collector
3. Emitter

ABSOLUTE MAXIMUM RATINGS (Ta= 25℃)

Characteristic	Symbol	Rating	Uint
Collector Base Voltage	V_{CBO}	700	V
Collector Emitter Voltage	V_{CEO}	400	V
Emitter Base Voltage	V_{EBO}	9	V
Collector Current (DC)	Ic	8	A
Collector Current (Pulse)	Ic	16	A
Base Current	I_B	4	A
Collector Dissipation	Pc	80	W
Junction Temperature	Tj	150	℃
Storage Temperature	Tstg	-65 ~150	℃

ORDERING INFORMATION

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

ELECTRICAL CHARACTERISTICS(Ta= 25℃)

Characteristic	Symbol	Test Condition	Min	Typ	Max	Unit
*Collector Emitter Sustaining Voltage	$V_{CEO(SUS)}$	Ic = 10mA, I_B = 0	400			V
Emitter Cutoff Current	I_{EBO}	V_{EB} =9V, Ic=0			1	mA
*DC Current Gain	h_{FE}	V_{CE} =5V, Ic =2A	8		60	
		V_{CE} =5V, Ic =5A	5		30	
*Collector Emitter Saturation Voltage	V_{CE} (sat)	Ic =2A, I_B =0.4A			1	V
		Ic =5A, I_B =1A			2	V
		Ic =8A, I_B =2A			3	V
*Base Emitter Saturation Voltage	V_{BE} (sat)	Ic =2A, I_B =0.4A			1.2	V
		Ic =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, Ic =0.5A	4			MHz
Turn On Time	t_{on}	V_{CC} =125V, Ic =5A			1.6	μS
Storage Time	ts	I_{B1} =I_{B2} =1A			3	μS
Fall Time	t_f				0.7	μS

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

TO-220 Unit:mm