

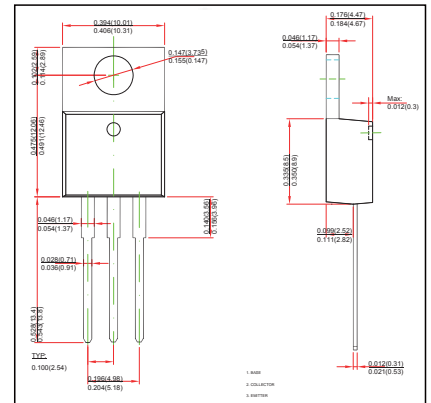
TO-220 Plastic-Encapsulate Transistors

FEATURES

- Power switching applications
- Good high temperature
- Low saturation voltage
- High speed switching
- TRANSISTOR(NPN)

MECHANICAL DATA

- Case style: TO-220L molded plastic
- Mounting position: any



MAXIMUM RATINGS AND CHARACTERISTICS

@ 25°C Ambient Temperature (unless otherwise noted)

Parameter	Symbol	Value	Unit
Collector-Base Voltage	V _{CB0}	700	V
Collector-Emitter Voltage	V _{CEO}	420	V
Emitter-Base Voltage	V _{EBO}	9	V
Collector Current -Continuous	I _C	4	A
Collector Power Dissipation	P _C	2	W
Thermal Resistance from Junction to Ambient	R _{θJA}	62.5	°C/ W
Junction Temperature	T _j	150	°C
Storage Temperature	T _{stg}	-55 ~ +150	°C

Electrical Specification (T_A=25°C unless otherwise specified)

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Collector-base breakdown voltage	V _{(BR)CBO}	I _C =1mA, I _E =0	700			V
Collector-emitter breakdown voltage	V _{(BR)CEO}	I _C =10mA, I _B =0	420			V
Emitter-base breakdown voltage	V _{(BR)EBO}	I _E =1mA, I _C =0	9			V
Collector cut-off current	I _{CBO}	V _{CB} =700V, I _E =0			100	μA
Collector cut-off current	I _{CEO}	V _{CE} =400V, I _B =0			100	μA
Emitter cut-off current	I _{EBO}	V _{EB} =7V, I _C =0A			100	μA
DC current gain	hFE(1)	V _{CE} =5V, I _C =1A	10		40	
	hFE(2)	V _{CE} =5V, I _C =200mA	10		60	
	hFE(3)	V _{CE} =5V, I _C =10mA	5			
	hFE(4)	V _{CE} =5V, I _C =4A	8		40	
Collector-emitter saturation voltage	V _{CE(sat)} (1)	I _C =1A, I _B =0.2A			0.3	V
	V _{CE(sat)} (2)	I _C =2A, I _B =0.4A	0.15 0.25		0.28 0.35	V V
	V _{CE(sat)} (3)	I _C =4A, I _B =1A			0.8	V
Base-emitter saturation voltage	V _{BE(sat)}	I _C =2A, I _B =0.5A			1.6	V
Diode forward voltage	V _{FEC}	I _C =2A			2	V
Transition frequency	f _T	V _{CE} =10V, I _C =0.5A, f=1MHz	5			MHz
Rise time	t _r	I _C =250mA			0.5	μs
Storage time	t _s	I _C =250mA	2.0		4.0	
Fall time	t _f	I _C =250mA			0.5	

RATINGS AND CHARACTERISTIC CURVES

Static Characteristic

