



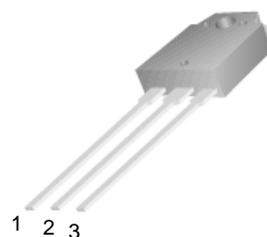
奧德利®
AUDLEY

E13009L

Features

- High Voltage Capability
- High Switching Speed
- Suitable for Electronic Ballast and Switching Mode Power Supply

TO-3P



1.Base 2.Collector 3.Emitter

Absolute Maximum Ratings*

T = 25°C unless otherwise noted

Symbol	Parameter	Value	Units
V _{CBO}	Collector-Base Voltage	700	V
V _{CEO}	Collector-Emitter Voltage	400	V
V _{EBO}	Emitter-Base Voltage	9	V
I _C	Collector Current (DC)	12	A
I _{CP}	Collector Current (Pulse)	24	A
I _B	Base Current	6	A
P _C	Collector Dissipation (T _C =25°C)	100	W
T _J	Junction Temperature	150	°C
T _{STG}	Storage Temperature	- 65 ~ 150	°C

Electrical Characteristics T = 25°C unless otherwise noted

Symbol	Parameter	Test Condition	Min.	Typ.	Max.	Units
V _{CEO(sus)}	Collector-Emitter Sustaining Voltage	I _C = 10mA, I _B = 0	400			V
I _{EBO}	Emitter Cut-off Current	V _{EB} = 9V, I _C = 0			1	mA
h _{FE}	* DC Current Gain	V _{CE} = 5V, I _C = 5A V _{CE} = 5V, I _C = 8A	8 6		40 30	
V _{CE(sat)}	* Collector-Emitter Saturation Voltage	I _C = 5A, I _B = 1A I _C = 8A, I _B = 1.6A I _C = 12A, I _B = 3A			1 1.5 3	V V V
V _{BE(sat)}	* Base-Emitter Saturation Voltage	I _C = 5A, I _B = 1A I _C = 8A, I _B = 1.6A			1.2 1.6	V V
C _{ob}	Output Capacitance	V _{CB} = 10V, f = 0.1MHz		180		pF
f _T	Current Gain Bandwidth Product	V _{CE} = 10V, I _C = 0.5A	4			MHz
t _{ON}	Turn On Time	V _{CC} = 125V, I _C = 8A			1.1	μs
t _{STG}	Storage Time	I _{B1} = - I _{B2} = 1.6A			3	μs
t _F	Fall Time	R _L = 15,6Ω			0.7	μs

* Pulse test: PW≤300μs, Duty cycle≤2%

Typical Performance Characteristics

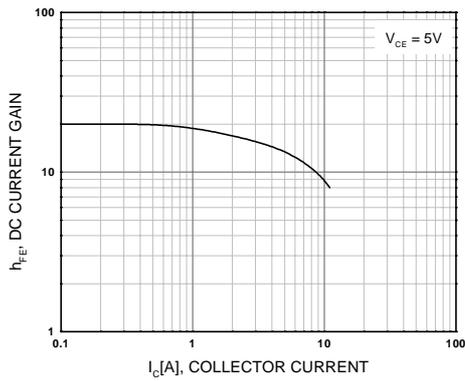


Figure 1. DC current Gain

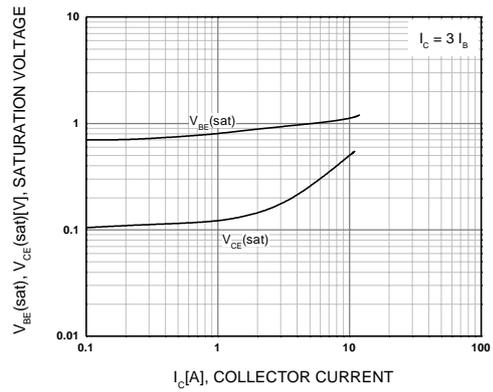


Figure 2. Base-Emitter Saturation Voltage
Collector-Emitter Saturation Voltage

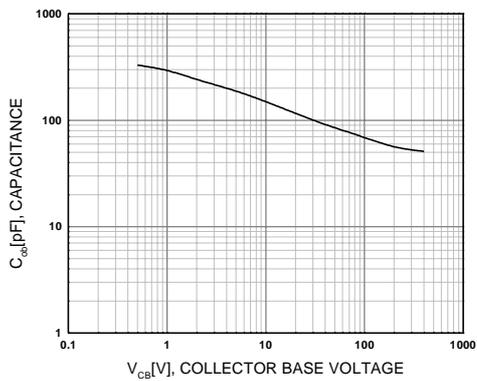


Figure 3. Collector Output Capacitance

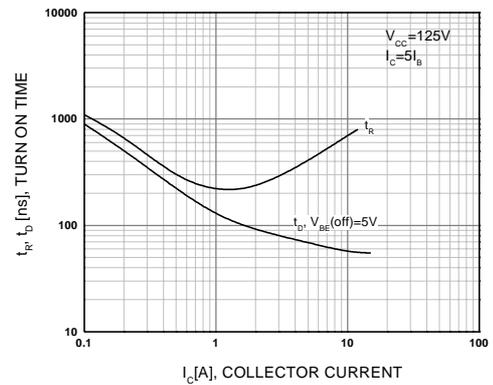


Figure 4. Turn On Time

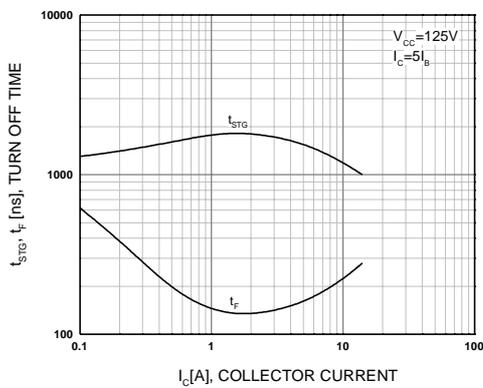


Figure 5. Turn Off Time

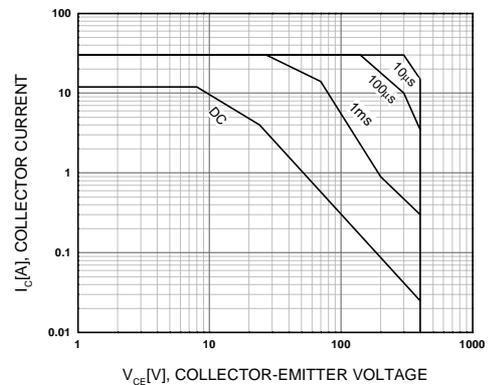


Figure 6. Forward Bias Safe Operating Area

Typical Performance Characteristics

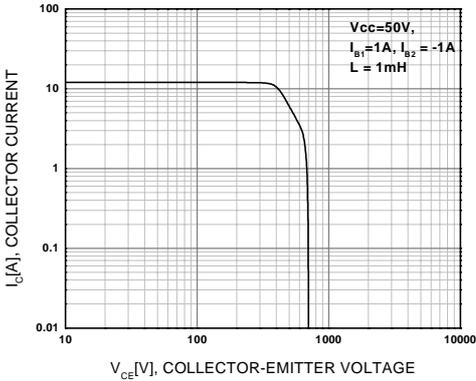


Figure 7. Reverse Bias Safe Operating Area

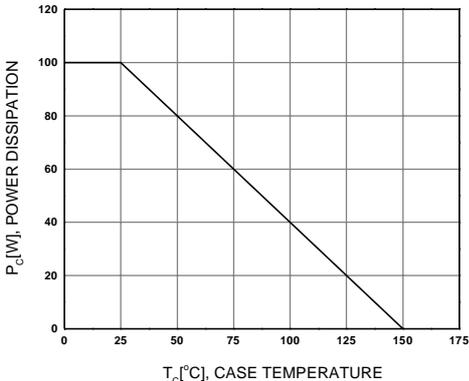
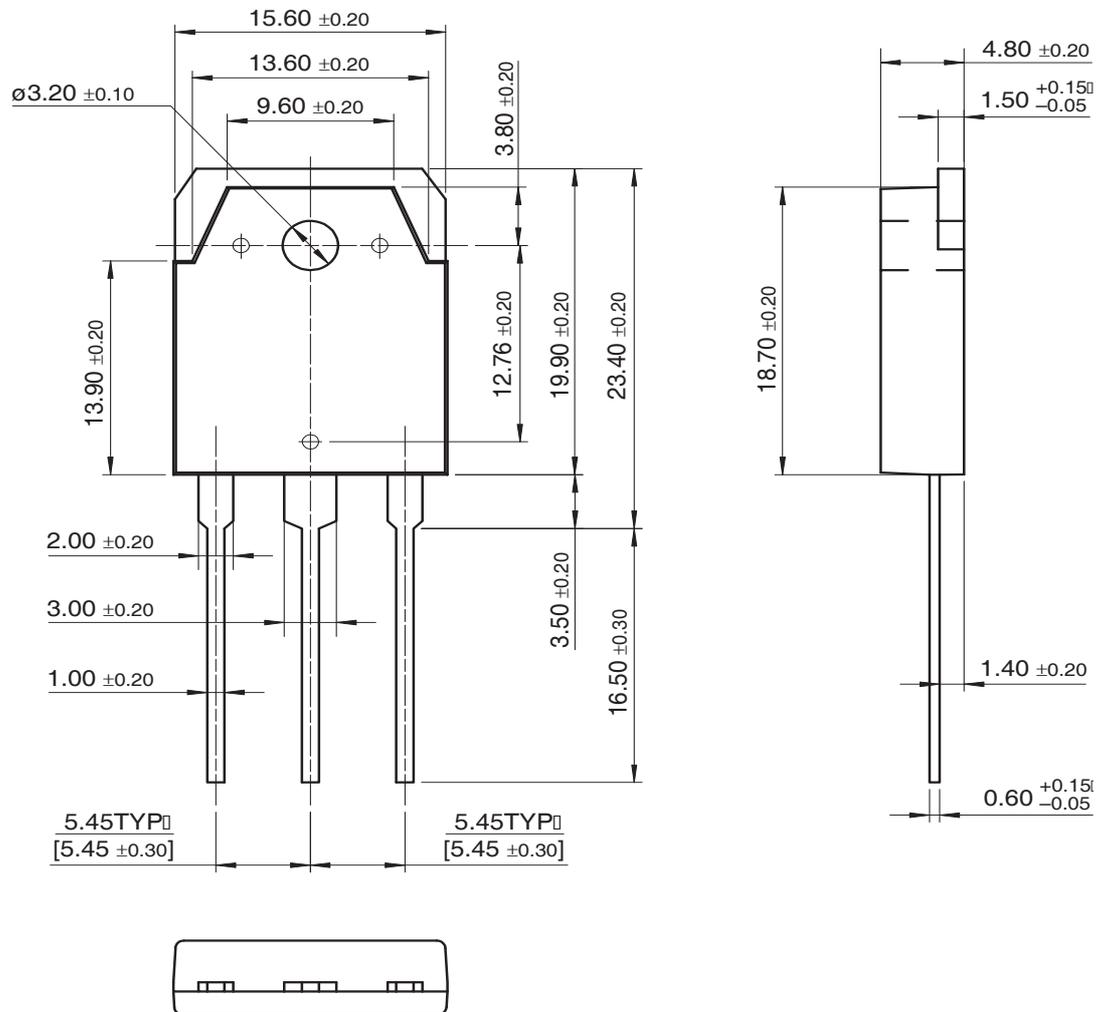


Figure 8. Power Derating

Package Dimension

TO-3P



Dimensions in Millimeters