

DESCRIPTION

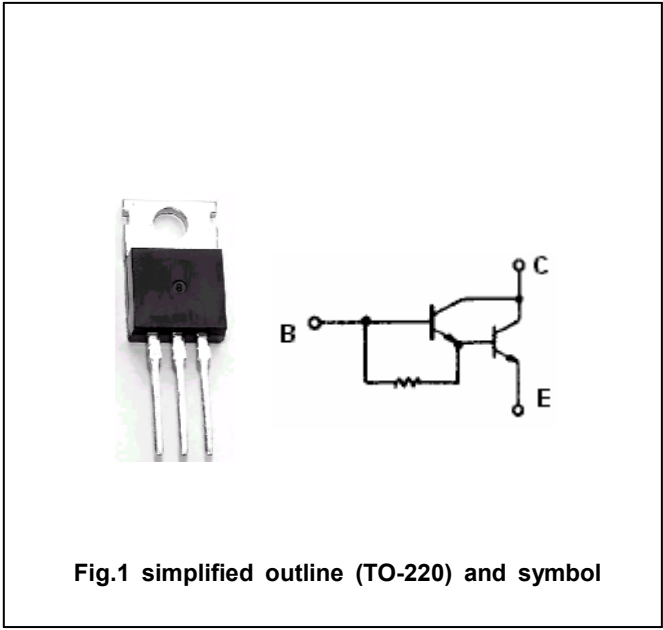
- With TO-220 package
- High DC current gain
- DARLINGTON
- Low collector saturation voltage
- Excellent safe operating area

APPLICATIONS

- Electronic ignitor
- Relay and solenoid drivers
- Switching regulators
- Motor controls

PINNING

PIN	DESCRIPTION
1	Base
2	Collector;connected to mounting base
3	Emitter



Absolute maximum ratings (Ta=25)

SYMBOL	PARAMETER	CONDITIONS	VALUE	UNIT
V_{CBO}	Collector-base voltage	Open emitter	250	V
V_{CEO}	Collector-emitter voltage	Open base	200	V
$V_{CEO(SUS)}$	Collector-emitter voltage		180	
V_{EBO}	Emitter-base voltage	Open collector	10	V
I_C	Collector current-continuous		4	A
I_B	Base current		0.3	A
P_C	Collector power dissipation	$T_C=25$	25	W
T_j	Junction temperature		150	
T_{stg}	Storage temperature		-55~150	

THERMAL CHARACTERISTICS

SYMBOL	CHARACTERISTICS	MAX	UNIT
$R\theta_{jc}$	Thermal resistance junction to case	5.0	/W

CHARACTERISTICS

Tj=25 unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
$V_{CEO(SUS)}$	Collector-emitter sustaining voltage	$I_C=1A$; $I_B=0$	180			V
$V_{(BR)CEO}$	Collector-emitter breakdown voltage	$I_C=10mA$; $I_B=0$	200			V
$V_{(BR)CBO}$	Collector-base breakdown voltage	$I_C=0.1mA$; $I_E=0$	250			V
$V_{(BR)EBO}$	Emitter-base breakdown voltage	$I_E=10mA$; $I_C=0$	10			V
V_{CEsat}	Collector-emitter saturation voltage	$I_C=2A$; $I_B=2mA$			1.5	V
V_{BEsat}	Base-emitter saturation voltage	$I_C=2A$; $I_B=2mA$			2.0	V
I_{CBO}	Collector cut-off current	$V_{CB}=250V$; $I_E=0$			0.1	mA
I_{EBO}	Emitter cut-off current	$V_{EB}=10V$; $I_C=0$			10	mA
h_{FE}	DC current gain	$I_C=2A$; $V_{CE}=2V$	1500			

Switching times

t_{on}	Turn-on time	$I_C=2A$; $I_{B1}=-I_{B2}=5mA$; $R_L=10\Omega$ $PW=20\mu s$; $Duty\leq 2\%$			1.7	μs
t_s	Storage time				15.0	μs
t_f	Fall time				18.0	μs

PACKAGE OUTLINE

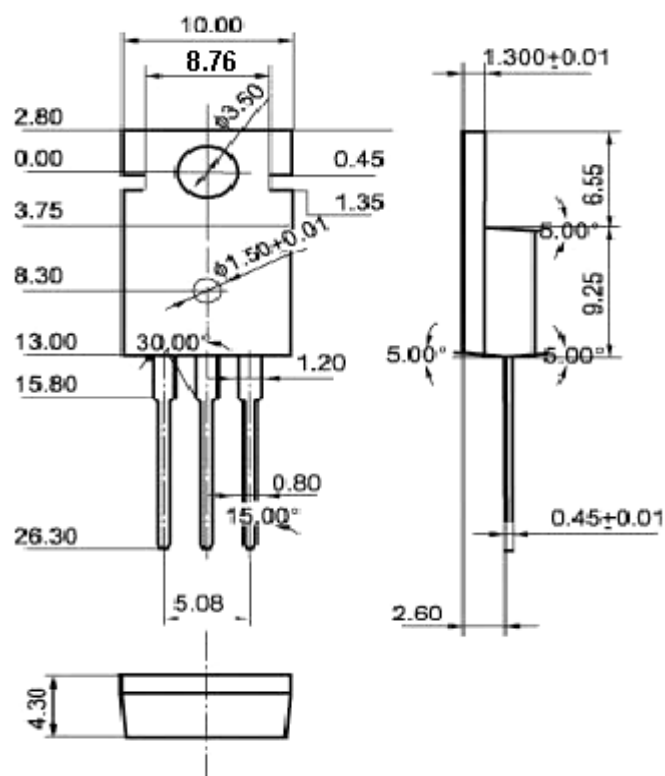


Fig.2 Outline dimensions (unindicated tolerance:±0.10 mm)