

Silicon NPN Power Transistors

BUL6825

DESCRIPTION

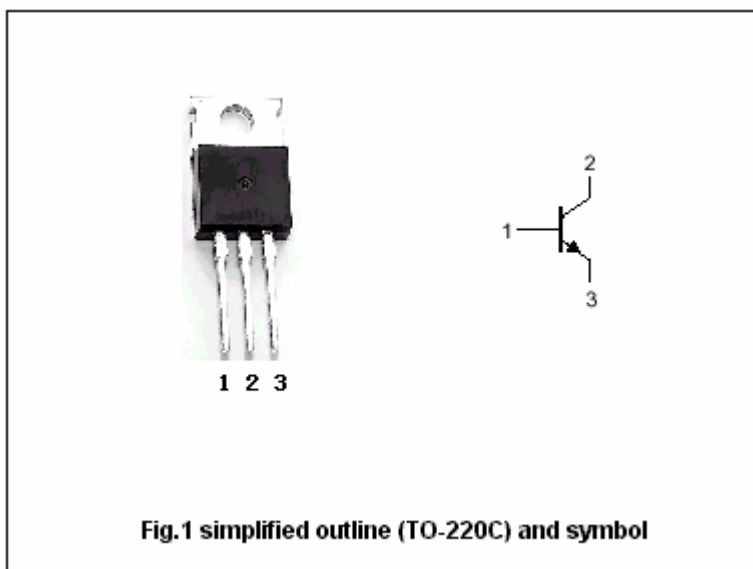
- With TO-220C package
- High voltage ,high speed

APPLICATIONS

- Relay drivers
- Inverters
- Switching regulators
- Deflection circuits

PINNING

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

Absolute maximum ratings($T_a=25^\circ\text{C}$)

SYMBOL	PARAMETER	CONDITIONS	VALUE	UNIT
V_{CBO}	Collector-base voltage	Open emitter	700	V
V_{CEO}	Collector-emitter voltage	Open base	400	V
V_{EBO}	Emitter-base voltage	Open collector	9	V
I_C	Collector current (DC)		4	A
I_{CM}	Collector current-Peak		8	A
I_B	Base current		2	A
I_{BM}	Base current-Peak		4	A
P_D	Total power dissipation	$T_a=25$	2	W
		$T_C=25$	75	
T_j	Junction temperature		150	
T_{stg}	Storage temperature		-65~150	

THERMAL CHARACTERISTICS

SYMBOL	PARAMETER	VALUE	UNIT
$R_{th\ j-c}$	Thermal resistance from junction to case	1.67	/W

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CHARACTERISTICS

Tj=25 unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
$V_{CEO(SUS)}$	Collector-emitter sustaining voltage	$I_C=10mA ; I_B=0$	400			V
$V_{CEsat-1}$	Collector-emitter saturation voltage	$I_C=1A ; I_B=0.2A$			0.5	V
$V_{CEsat-2}$	Collector-emitter saturation voltage	$I_C=2A ; I_B=0.5A$ $T_C=100$			0.6 1.0	V
$V_{CEsat-3}$	Collector-emitter saturation voltage	$I_C=4A ; I_B=1A$			1.0	V
$V_{BEsat-1}$	Base-emitter saturation voltage	$I_C=1A ; I_B=0.2A$			1.2	V
$V_{BEsat-2}$	Base-emitter saturation voltage	$I_C=2A ; I_B=0.5A$ $T_C=100$			1.6 1.5	V
I_{CBO}	Collector cut-off current	$V_{CB}=700V ; I_E=0$ $T_C=100$			1.0 5.0	mA
I_{EBO}	Emitter cut-off current	$V_{EB}=9V ; I_C=0$			1.0	mA
h_{FE-1}	DC current gain	$I_C=1A ; V_{CE}=5V$	10		60	
h_{FE-2}	DC current gain	$I_C=2A ; V_{CE}=5V$	8		40	
f_T	Transition frequency	$I_C=0.5A ; V_{CE}=5V$	4			MHz
C_{OB}	Collector outoput capacitance	$f=1MHz ; V_{CB}=10V$		65		pF

Switching times resistive load

t_d	Delay time	$V_{CC}=125V , I_C=2A$ $I_{B1}=- I_{B2}=0.4A$ $t_p=25\mu s$ duty cycle $\leq 1\%$			0.1	μs
t_r	Rise time				0.7	μs
t_s	Storage time				4.0	μs
t_f	Fall time				0.9	μs

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PACKAGE OUTLINE

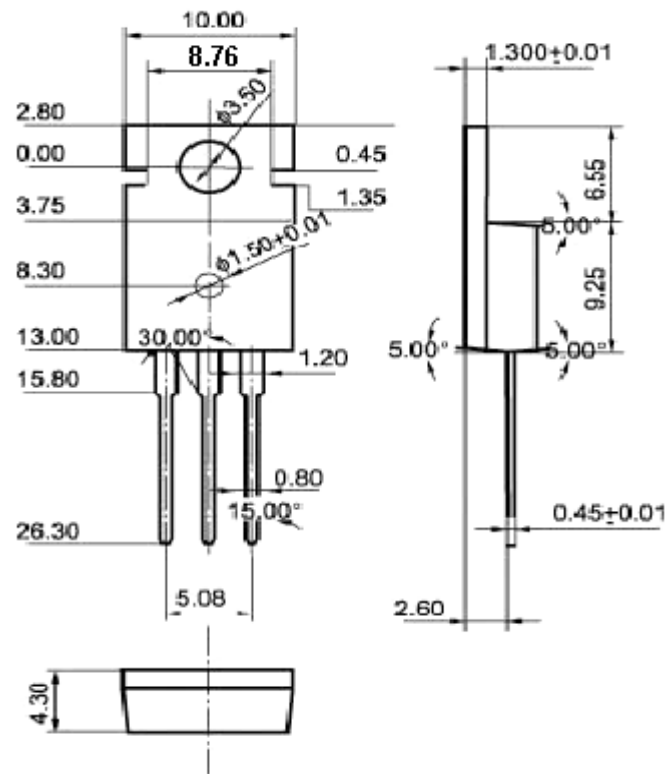


Fig.2 Outline dimensions (unindicated tolerance: 0.1mm)