Silicon NPN Power Transistors BUL56B

DESCRIPTION

·With TO-220C package
·High voltage
·Fast switching
·High energy rating

APPLICATIONS

·Designed for use in electronic ballast applications

PINNING

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

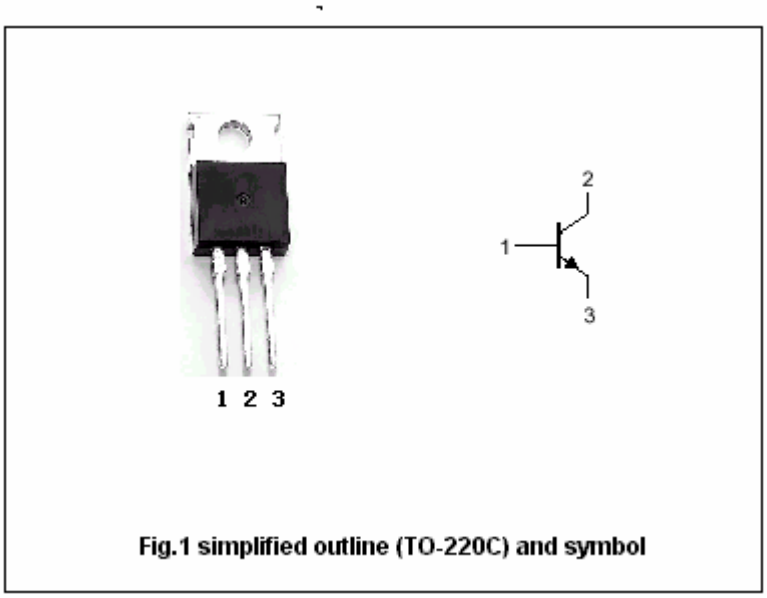

Fig.1 simplified outline (TO-220C) and symbol

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	100	V
V_{EBO}	Emitter-base voltage	Open collector	10	V
I_C	Collector current (DC)		18	A
I_{CM}	Collector current-Peak		25	A
I_B	Base current		5	A
P_{tot}	Total power dissipation	T_C=25□	85	W
T_{stg}	Operating and storage temperature		-55~150	□

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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	100			V
$V_{(BR)CBO}$	Collector-base breakdown voltage	I_C=1mA ;I_E=0	250			V
$V_{(BR)EBO}$	Emitter-base breakdwon voltage	I_E=1mA ;I_C=0	10			V
$V_{CEsat-1}$	Collector-emitter saturation voltage	I_C=1A ;I_B=0.1A			0.2	V
$V_{CEsat-2}$	Collector-emitter saturation voltage	I_C=7A ;I_B=0.7A			0.6	V
$V_{CEsat-3}$	Collector-emitter saturation voltage	I_C=12A; I_B=1.2A			1.2	V
$V_{BEsat-1}$	Base-emitter saturation voltage	I_C=7A; I_B=0.7A			1.2	V
$V_{BEsat-2}$	Base-emitter saturation voltage	I_C=12A; I_B=1.2A			1.8	V
I_{CBO}	Collector cut-off current	V_{CB}=250V; I_E=0 T_C=125□			10 100	μA
I_{CEO}	Collector cut-off current	V_{CE}=90V ;I_B=0			100	μA
I_{EBO}	Emitter cut-off current	V_{EB}=9V; I_C=0 T_C=125□			10 100	μA
h_{FE-1}	DC current gain	I_C=0.3A ; V_{CE}=5V	30		90	
h_{FE-2}	DC current gain	I_C=5A ; V_{CE}=5V	25		60	
h_{FE-3}	DC current gain	I_C=12A ; V_{CE}=1V	5			
f_T	Transition frequency	I_C=0.2A ; V_{CE}=4V		20		MHz
C_{ob}	Output capacitance	V_{CB}=100V ;f=1MHz		100		pF

PACKAGE OUTLINE

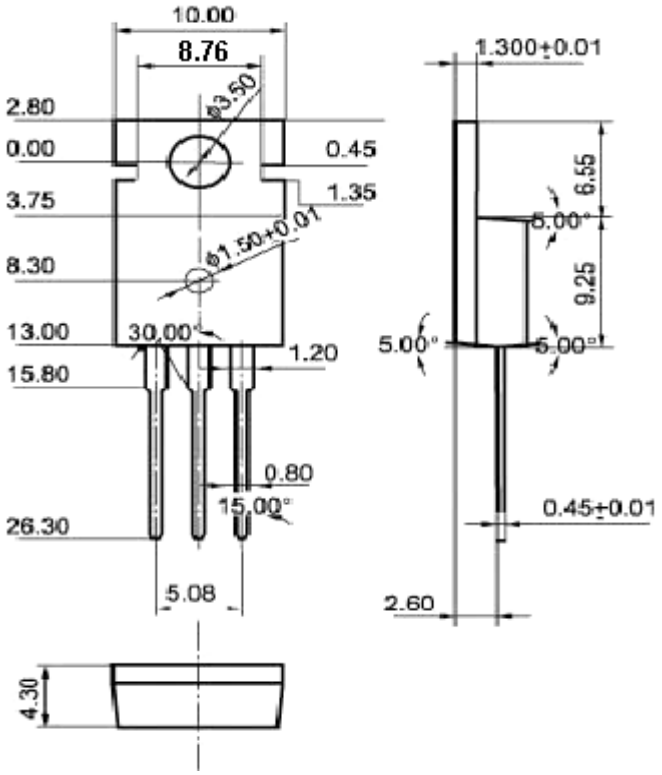

Fig.2 Outline dimensions (unindicated tolerance: 0.1mm)