

Silicon NPN Power Transistors

2SC3257

DESCRIPTION

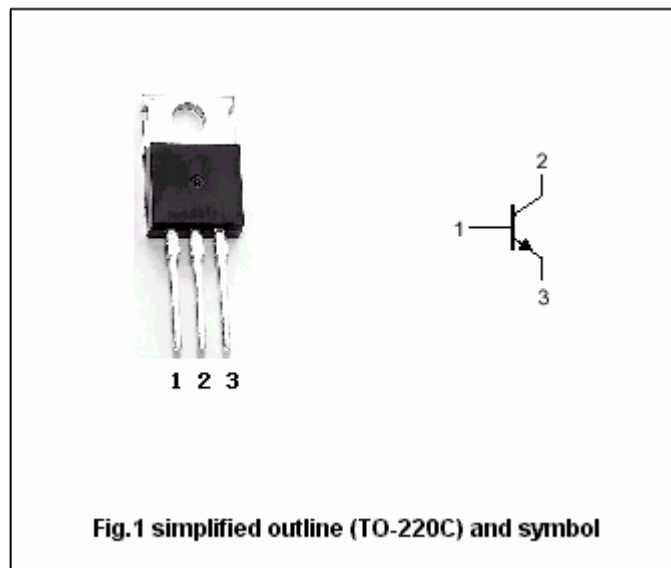
- With TO-220 package
- High collector breakdown voltage
- Excellent switching times

APPLICATIONS

- Switching regulator and high voltage switching applications
- High speed DC-DC converter applications

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	250	V
V_{CEO}	Collector-emitter voltage	Open base	200	V
V_{EBO}	Emitter-base voltage	Open collector	7	V
I_C	Collector current		10	A
I_{CM}	Collector current-peak		15	A
I_B	Base current		2	A
P_C	Collector power dissipation	$T_C=25^\circ\text{C}$	1.5	W
		$T_a=25^\circ\text{C}$	40	
T_j	Junction temperature		150	$^\circ\text{C}$
T_{stg}	Storage temperature		-55~150	$^\circ\text{C}$

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CHARACTERISTICS

Tj=25°C unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
$V_{(BR)CEO}$	Collector-emitter breakdown voltage	$I_C=10mA ; I_B=0$	200			V
$V_{(BR)CBO}$	Collector-base breakdown voltage	$I_C=1mA ; I_E=0$	250			V
V_{CEsat}	Collector-emitter saturation voltage	$I_C=5A ; I_B=0.5A$			1.0	V
V_{BEsat}	Base-emitter saturation voltage	$I_C=5A ; I_B=0.5A$			1.5	V
I_{CBO}	Collector cut-off current	$V_{CB}=200V ; I_E=0$			100	μA
I_{EBO}	Emitter cut-off current	$V_{EB}=7V ; I_C=0$			1.0	mA
h_{FE-1}	DC current gain	$I_C=10mA ; V_{CE}=5V$	15			
h_{FE-2}	DC current gain	$I_C=5A ; V_{CE}=5V$	20		80	

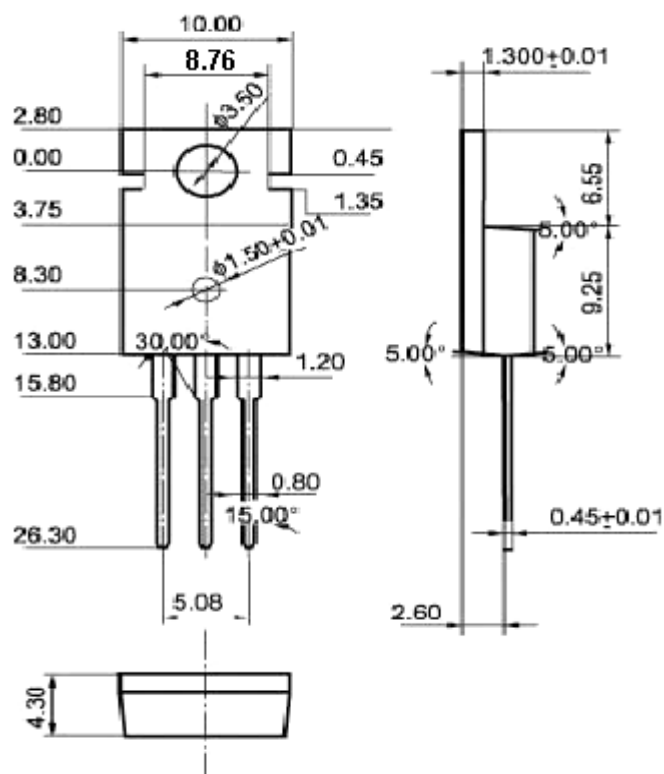
Switching times

t_r	Rise time	$I_{B1}=-I_{B2}=0.6A ; V_{CC}\approx 150V$ $R_L=25\Omega$			1.0	μs
t_s	Storage time				2.5	μs
t_f	Fall time				1.0	μs

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PACKAGE OUTLINE

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