

Silicon NPN Power Transistors

2SC2739

DESCRIPTION

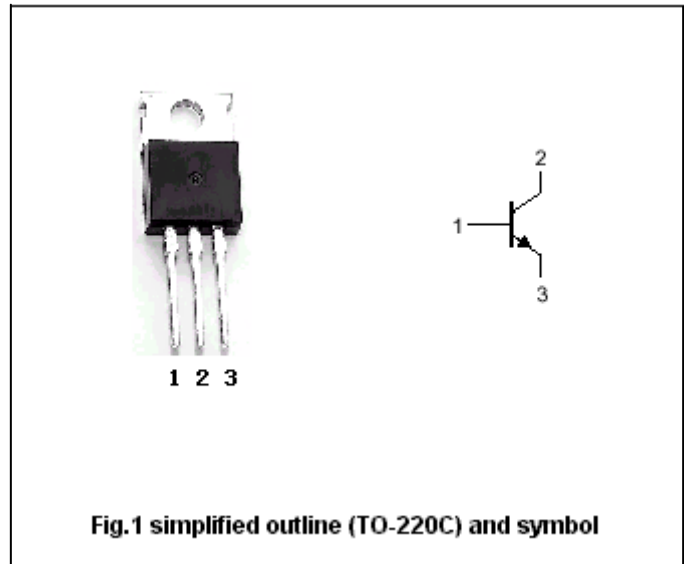
- With TO-220C package
- High speed switching
- High V_{CBO}
- Low saturation voltage

APPLICATIONS

- For high speed switching 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	500	V
V_{CEO}	Collector-emitter voltage	Open base	400	V
V_{EBO}	Emitter-base voltage	Open collector	7	V
I_C	Collector current (DC)		7	A
I_{CM}	Collector current-Peak		15	A
I_B	Base current		3	A
P_C	Collector power dissipation	$T_C=25^{\circ}\text{C}$	40	W
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
$V_{CEQ(SUS)}$	Collector-emitter sustaining voltage	$I_C=0.2A$; $L=25mH$	400			V
$V_{CE(sat)}$	Collector-emitter saturation voltage	$I_C=3A$; $I_B=0.6A$			1.0	V
$V_{BE(sat)}$	Base-emitter saturation voltage	$I_C=3A$; $I_B=0.6A$			1.5	V
I_{CBO}	Collector cut-off current	$V_{CB}=500V$; $I_E=0$			100	μA
I_{EBO}	Emitter cut-off current	$V_{EB}=5V$; $I_C=0$			100	μA
h_{FE-1}	DC current gain	$I_C=0.1A$; $V_{CE}=5V$	15			
h_{FE-2}	DC current gain	$I_C=3A$; $V_{CE}=5V$	8			
f_T	Transition frequency	$I_C=0.5A$; $V_{CE}=10V$		11		MHz

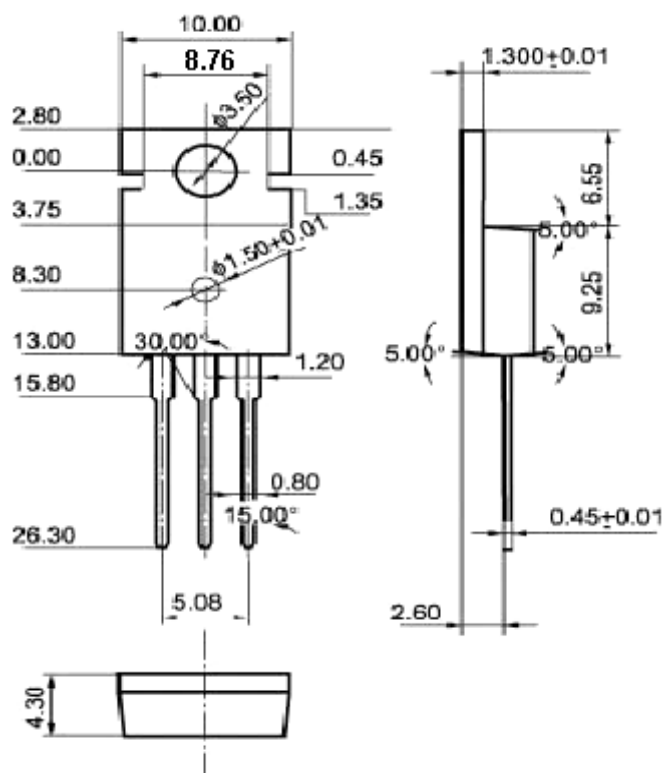
Switching times

t_{on}	Turn-on time	$V_{CC}=100V$, $I_C=3A$, $I_{B1}=-I_{B2}=0.6A$			1.0	μs
t_s	Storage time				3.0	μs
t_f	Fall time				1.0	μs

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PACKAGE OUTLINE

Fig.2 Outline dimensions (unindicated tolerance: $\pm 0.10\text{mm}$)