

Silicon NPN Power Transistors

2SC2335F

DESCRIPTION

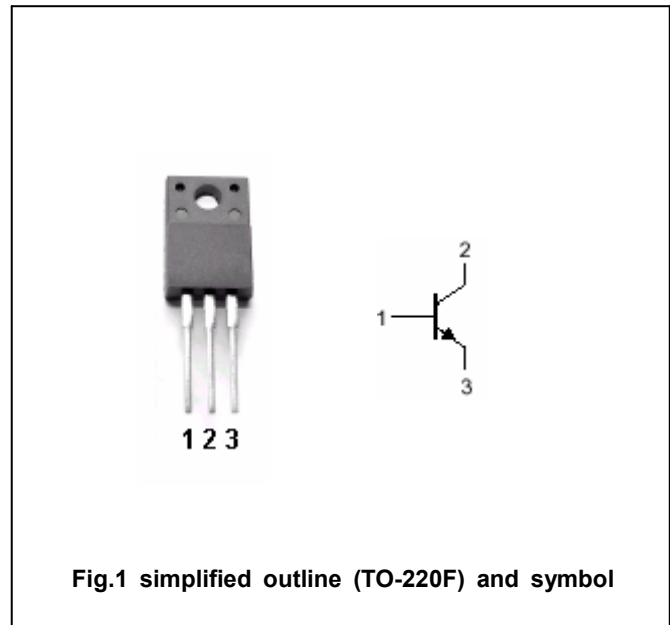
- With TO-220F package
- Collector-emitter sustaining voltage
 $V_{CEO(sus)}=400V(\text{Min})$
- Collector-emitter saturation voltage
 $V_{CE(sat)}=1.0V(\text{Max.})@I_C=3.0A, I_B=0.6A$
- Switching time- $t_f=1.0\mu s(\text{Max.})@I_C=3.0A$

APPLICATIONS

- Designed for use in high-voltage ,high-speed ,power switching in inductive circuit, particularly suited for 115 and 220V switch-mode applications such as switching regulator's ,inverters,,DC-DC and converter

PINNING

PIN	DESCRIPTION
1	Base
2	Collector
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		7	A
I_{CM}	Collector current-peak		15	A
I_B	Base current		3.5	A
P_D	Total power dissipation	$T_C=25^\circ\text{C}$	40	W
T_j	Junction temperature		150	$^\circ\text{C}$
T_{stg}	Storage temperature		-50~150	$^\circ\text{C}$

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CHARACTERISTICS

Tj=25°C unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
$V_{(SUS)CEO}$	Collector-emitter sustaining voltage	$I_C=3.0A$; $I_{B1}=0.6A, L=1mH$	400			V
V_{CEsat}	Collector-emitter saturation voltage	$I_C=3A$; $I_B=0.6A$			1.0	V
V_{BEsat}	Base-emitter saturation voltage	$I_C=3A$; $I_B=0.6A$			1.2	V
I_{CBO}	Collector cut-off current	$V_{CB}=400V$; $I_E=0$			10	μA
I_{CEX}	Collector cut-off current	$V_{CE}=400V$; $V_{BE(off)}=-1.5V$ $T_C=125^\circ C$			10 1.0	μA mA
I_{EBO}	Emitter cut-off current	$V_{EB}=5V$; $I_C=0$			10	μA
h_{FE-1}	DC current gain	$I_C=0.1A$; $V_{CE}=5V$	20			
h_{FE-2}	DC current gain	$I_C=1.0A$; $V_{CE}=5V$	20		80	
h_{FE-3}	DC current gain	$I_C=3.0A$; $V_{CE}=5V$	10			

Switching times

t_{on}	Turn-on time	$V_{CC}=150V$; $I_C=3.0A$; $I_{B1}=-I_{B2}=600mA$; $R_L=50\Omega$			1.0	μs
t_{stg}	Storage time				2.5	μs
t_f	Fall time				1.0	μs

◆ h_{FE-2} Classifications

R	O	Y
20-40	30-60	40-80

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PACKAGE OUTLINE

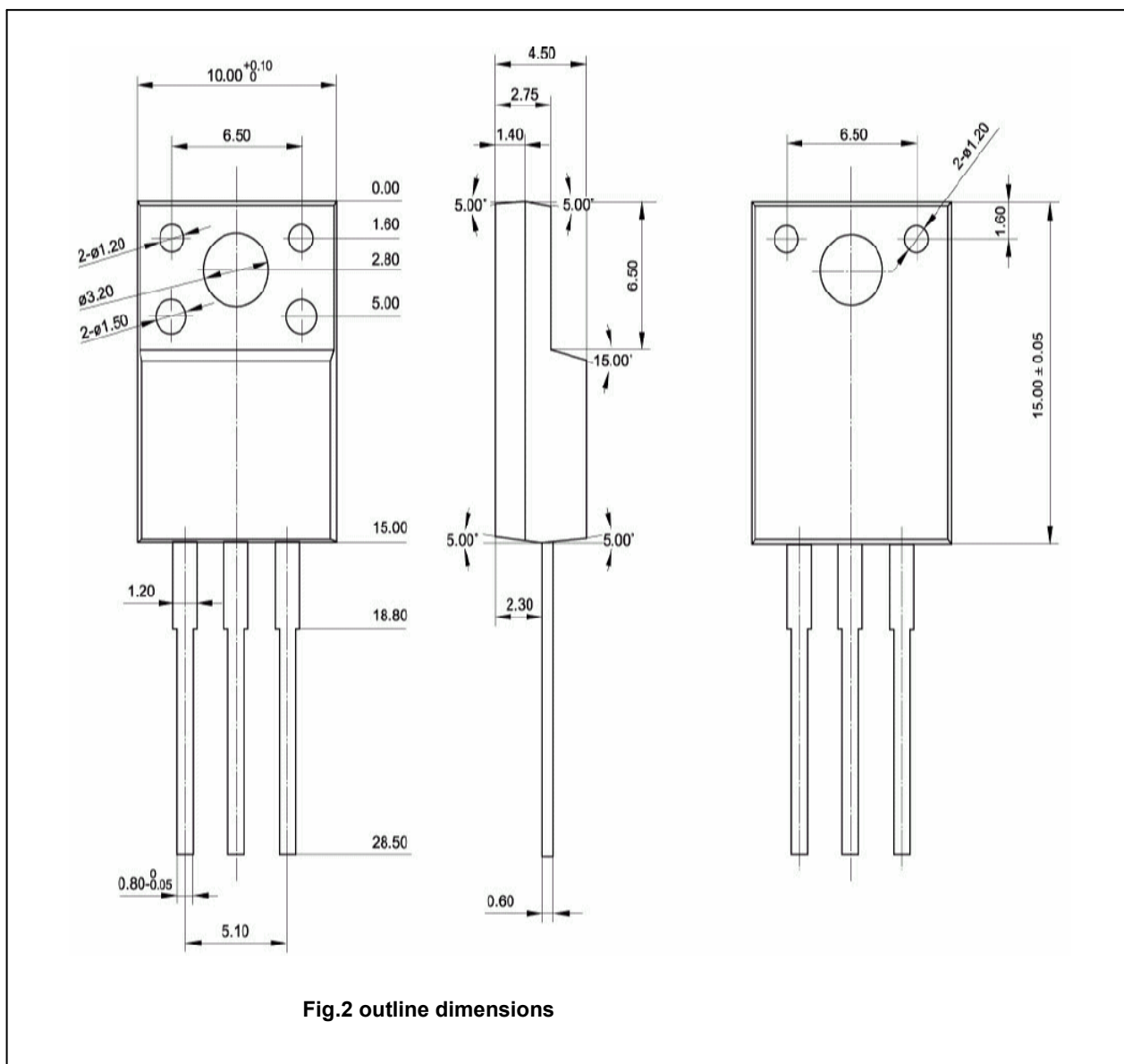


Fig.2 outline dimensions