

Silicon NPN Power Transistors

2SD1351

DESCRIPTION

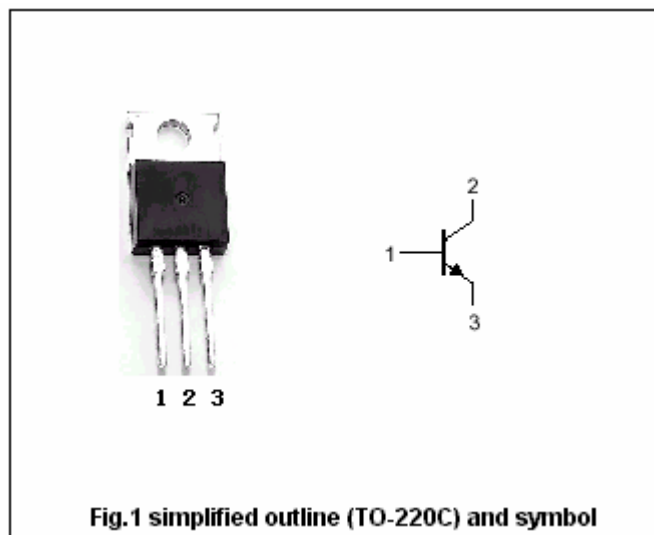
- With TO-220C package
- Complement to type 2SB988
- Low collector saturation voltage

APPLICATIONS

- For general purpose application

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	60	V
V_{CEO}	Collector-emitter voltage	Open base	60	V
V_{EBO}	Emitter-base voltage	Open collector	7	V
I_C	Collector current		3	A
I_B	Base current		0.5	A
P_C	Collector dissipation	$T_a=25^\circ\text{C}$	2	W
		$T_C=25^\circ\text{C}$	30	
T_j	Junction temperature		150	$^\circ\text{C}$
T_{stg}	Storage temperature		-50~150	$^\circ\text{C}$

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CHARACTERISTICS

Tj=25℃ unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
$V_{(BR)CEO}$	Collector-emitter breakdown voltage	$I_C=50mA; I_B=0$	60			V
V_{CEsat}	Collector-emitter saturation voltage	$I_C=2A; I_B=0.2A$		0.25	1.0	V
V_{BE}	Base-emitter on voltage	$I_C=0.5A; V_{CE}=5V$		0.7	1.0	V
I_{CBO}	Collector cut-off current	$V_{CB}=60V; I_E=0$			0.1	mA
I_{EBO}	Emitter cut-off current	$V_{EB}=7V; I_C=0$			0.1	mA
h_{FE}	DC current gain	$I_C=0.5A; V_{CE}=5V$	60		300	
C_{ob}	Output capacitance	$I_E=0; V_{CB}=10V, f=1MHz$		35		pF
f_T	Transition frequency	$I_C=0.5A; V_{CE}=5V$		3.0		MHz

Switching times

t_{on}	Turn-on time	$I_{B1}=-I_{B2}=0.2A$ $V_{CC}=30V; R_L=15\Omega$ Duty cycle $\leq 1\%$		0.65		μs
t_{stg}	Storage time			1.30		μs
t_f	Fall time			0.65		μs

◆ h_{FE} Classifications

O	Y	GR
60-120	100-200	150-300

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PACKAGE OUTLINE

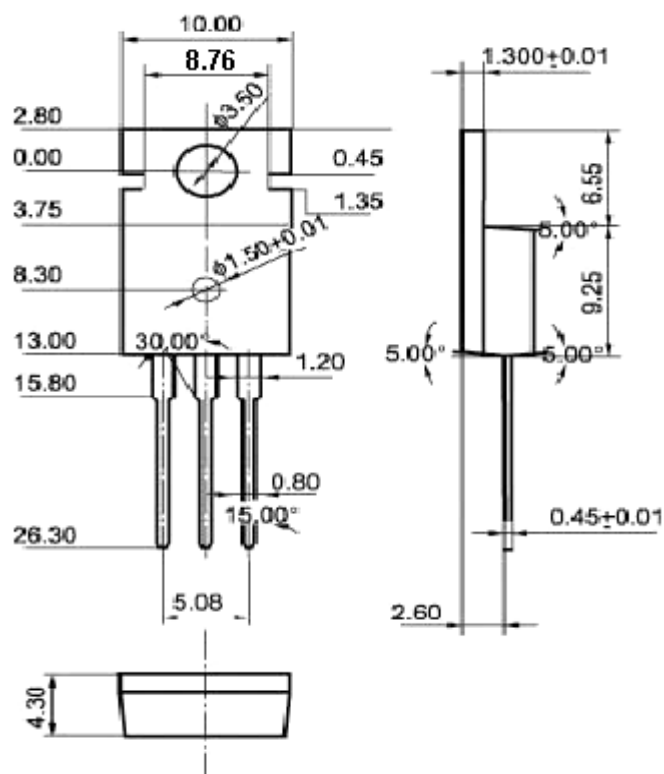


Fig.2 Outline dimensions (unindicated tolerance:±0.10mm)