

Silicon NPN Power Transistors

2SD2257

DESCRIPTION

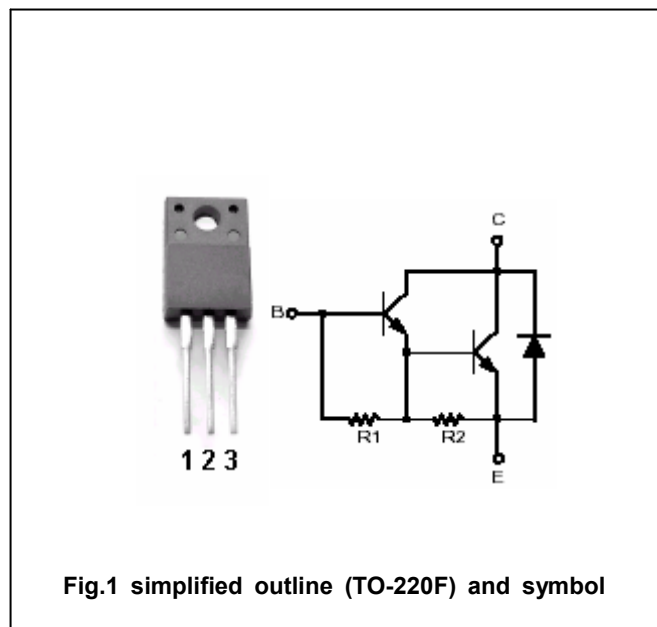
- With TO-220F package
- High DC current gain
- Low saturation voltage
- Complement to type 2SB1495
- DARLINGTON

APPLICATIONS

- High power switching applications
- Hammer drive,pulse motor drive applications

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	100	V
V_{CEO}	Collector-emitter voltage	Open base	100	V
V_{EBO}	Emitter-base voltage	Open collector	8	V
I_C	Collector current		± 3	A
I_{CM}	Collector current-peak		± 5	A
I_B	Base current		0.3	A
P_C	Collector dissipation	$T_a=25^\circ\text{C}$	2.0	W
		$T_c=25^\circ\text{C}$	20	
T_j	Junction temperature		150	$^\circ\text{C}$
T_{stg}	Storage temperature		-55~150	$^\circ\text{C}$

Silicon NPN Power Transistors

2SD2257

CHARACTERISTICS

Tj=25°C unless otherwise specified

www.datasheet4u.com

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
$V_{(BR)CEO}$	Collector-emitter breakdown voltage	$I_C=10mA ; I_B=0$	100			V
V_{CEsat}	Collector-emitter saturation voltage	$I_C=1.5A ; I_B=1.5mA$			1.5	V
V_{BEsat}	Base-emitter saturation voltage	$I_C=1.5A ; I_B=1.5mA$			2.0	V
I_{CBO}	Collector cut-off current	$V_{CB}=100V ; I_E=0$			10	μA
I_{EBO}	Emitter cut-off current	$V_{EB}=8V ; I_C=0$	0.8		4.0	mA
h_{FE-1}	DC current gain	$I_C=1A ; V_{CE}=2V$	2000			
h_{FE-2}	DC current gain	$I_C=2A ; V_{CE}=2V$	2000			
V_{ECF}	Diode forward voltage	$I_E=1A$			2.0	V

Switching times

t_{on}	Turn-on time	$I_{B1}=-I_{B2}=1.5mA$ $V_{CC}=30V, R_L=20\Omega$ Duty cycle $\leq 1\%$		0.5		μs
t_s	Storage time			2.0		μs
t_f	Fall time			0.5		μs

Silicon NPN Power Transistors

2SD2257

PACKAGE OUTLINE

www.datasheet4u.com

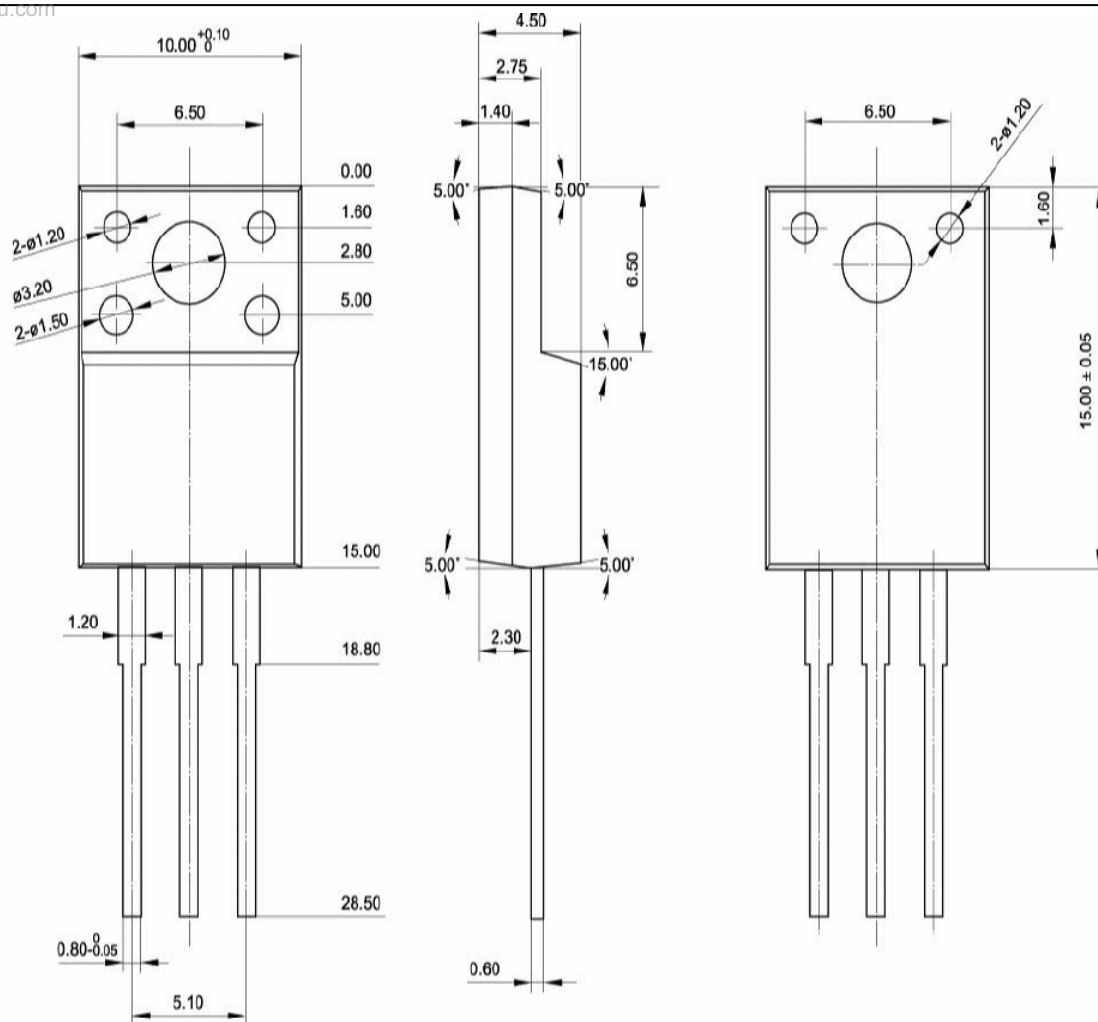


Fig.2 Outline dimensions