Silicon NPN Power Transistors 2SD1633

DESCRIPTION

·With TO-220Fa package
·DARLINGTON
·High speed switching
·Good linearity of h_{FE}

APPLICATIONS

·Power switching applications

PINNING

PIN	DESCRIPTION
1	Base
2	Collector
3	Emitter

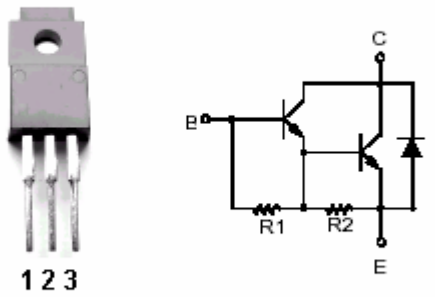


Fig.1 simplified outline (TO-220Fa) and symbol

Absolute maximum ratings(Ta=25□)

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	7	V
I_C	Collector current (DC)		5	A
I_{CM}	Collector current-Peak		8	A
I_B	Base current (DC)		0.5	A
P_C	Collector power dissipation	T_a=25□	2	W
		T_C=25□	30	
T_j	Junction temperature		150	□
T_{stg}	Storage temperature		-55~150	□

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CHARACTERISTICS

Tj=25□ unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
$V_{CEO(SUS)}$	Collector-emitter sustaining voltage	I_C=0.2A , I_B=0	100			V
V_{CEsat}	Collector-emitter saturation voltage	I_C=3A; I_B=3mA			1.5	V
V_{BEsat}	Base-emitter saturation voltage	I_C=3A; I_B=3mA			2.0	V
I_{CBO}	Collector cut-off current	V_{CB}=100V;I_E=0			100	μA
I_{CEO}	Collector cut-off current	V_{CE}=100V; I_B=0			100	μA
I_{EBO}	Emitter cut-off current	V_{EB}=7V; I_C=0			5	mA
h_{FE}	DC current gain	I_C=3A ; V_{CE}=3V	1500		10000	
Switching times						
t_{on}	Turn-on time	I_C=3A ;I_{B1}=3mA I_{B2}=-3mA; V_{CC}=50V			3.0	μs
t_s	Storage time				5.0	μs
t_f	Fall time				3.0	μs

◆ **h_{FE} Classifications**

Q	P
1500-6000	5000-10000

PACKAGE OUTLINE

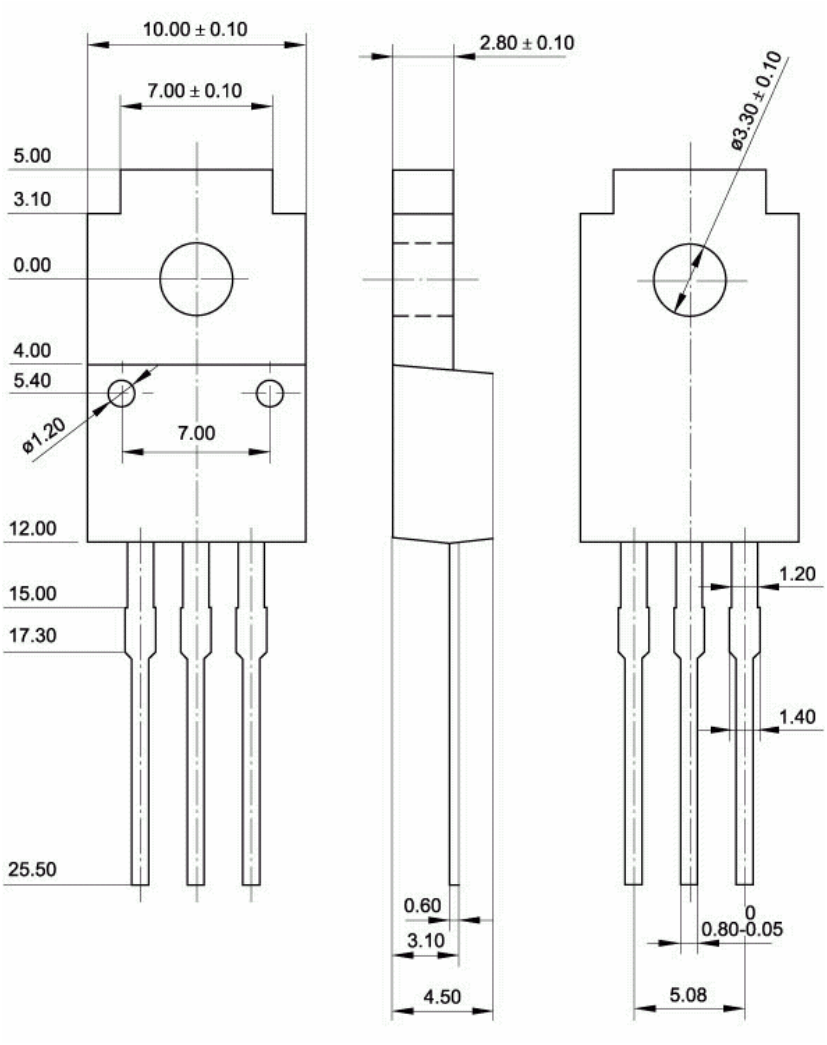


Fig.2 Outline dimensions (unindicated tolerance:±0.15 mm)