Silicon NPN Power Transistors 2SD2057

DESCRIPTION

·With TO-3PFa package
·High voltage,high speed
·Built-in damper diode
·Wide area of safe operation

APPLICATIONS

·Horizontal deflection output applications

PINNING

PIN	DESCRIPTION
1	Base
2	Collector
3	Emitter

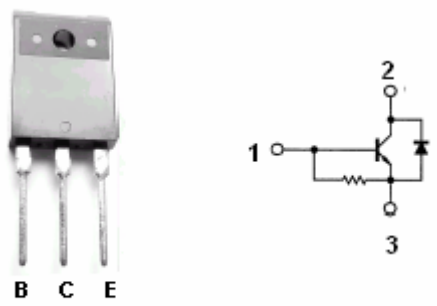

Fig.1 simplified outline (TO-3PFa) and symbol

Absolute maximum ratings(Ta=25□)

SYMBOL	PARAMETER	CONDITIONS	VALUE	UNIT
V_{CBO}	Collector-base voltage	Open emitter	1500	V
V_{EBO}	Emitter-base voltage	Open collector	7	V
I_C	Collector current		5	A
I_{CM}	Collector current-peak		20	A
I_B	Base current		4	A
P_C	Collector power dissipation	T_a=25□	3	W
		T_C=25□	100	
T_j	Max.operating 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
$V_{(BR)EBO}$	Emitter-base breakdown voltage	I_E=500mA ;I_C=0	7			V
V_{CEsat}	Collector-emitter saturation voltage	I_C=5A; I_B=1.2A			8.0	V
V_{BEsat}	Base-emitter saturation voltage	I_C=5A; I_B=1.2A			1.5	V
I_{CBO}	Collector cut-off current	V_{CB}=1000V; I_E=0			30	μA
		V_{CB}=1500V; I_E=0			0.3	mA
h_{FE-1}	DC current gain	I_C=1A ; V_{CE}=5V	8			
h_{FE-2}	DC current gain	I_C=5A ; V_{CE}=10V	4.5		15	
f_T	Transition frequency	I_C=1A ; V_{CE}=10V;f=0.5MHz		2		MHz
V_F	Diode forward voltage	I_C=-6A ;I_B=0			-2.3	V
t_s	Storage time	I_C=5A;I_{B1}=-I_{B2}=1.2A;L_{Leak}=5μH			12	μs
t_f	Fall time				0.8	μs

PACKAGE OUTLINE

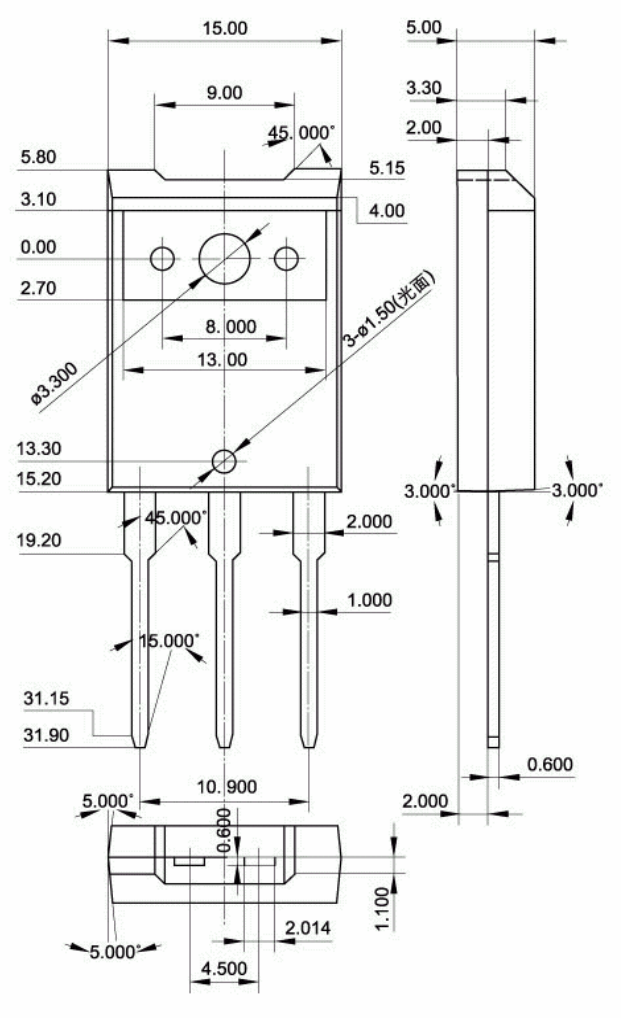

Fig.2 Outline dimensions (unindicated tolerance:±0.30mm)