Silicon NPN Power Transistors 2SD1559

DESCRIPTION

·With TO-3P(I) package
·Complement to type 2SB1079
·DARLINGTON

APPLICATIONS

·For low frequency power amplifier applications

PINNING

PIN	DESCRIPTION
1	Base
2	Collector;connected to mounting base
3	Emitter

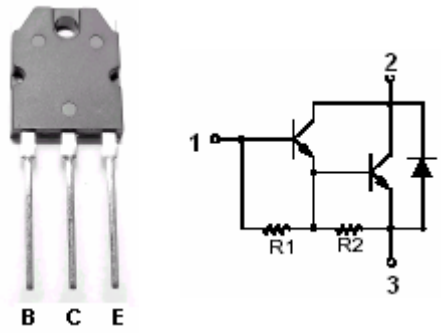

Fig.1 simplified outline (TO-3P(I)) and symbol

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		20	A
I_{CM}	Collector current-peak		30	A
I_B	Base current		3	A
P_C	Collector power dissipation	T_C=25□	100	W
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
$V_{(BR)CEO}$	Collector-emitter breakdown voltage	I_C=25mA ,R_{BE}=∞	100			V
$V_{(BR)CBO}$	Collector-base breakdown voltage	I_C=0.1mA ,I_E=0	100			V
$V_{(BR)EBO}$	Emitter-base breakdown voltage	I_E=50mA ,I_C=0	7			V
$V_{CEsat-1}$	Collector-emitter saturation voltage	I_C=10A; I_B=20mA			2.0	V
$V_{CEsat-2}$	Collector-emitter saturation voltage	I_C=20A; I_B=200mA			3.0	V
$V_{BE\ sat-1}$	Base-emitter saturation voltage	I_C=10A; I_B=20mA			2.5	V
$V_{BE\ sat-2}$	Base-emitter saturation voltage	I_C=20A; I_B=200mA			3.5	V
I_{CBO}	Collector cut-off current	V_{CB}=100V; I_E=0			100	μA
I_{CEO}	Collector cut-off current	V_{CE}=80V; R_{BE}=∞			1.0	mA
h_{FE}	DC current gain	I_C=10A ; V_{CE}=3V	1000		20000	

Switching times

t_{on}	Turn-on time	I_C=10A; I_{B1}=-I_{B2}=20mA		1.0		μs
t_{stg}	Storage time			9.0		μs
t_f	Fall time			3.0		μs

PACKAGE OUTLINE

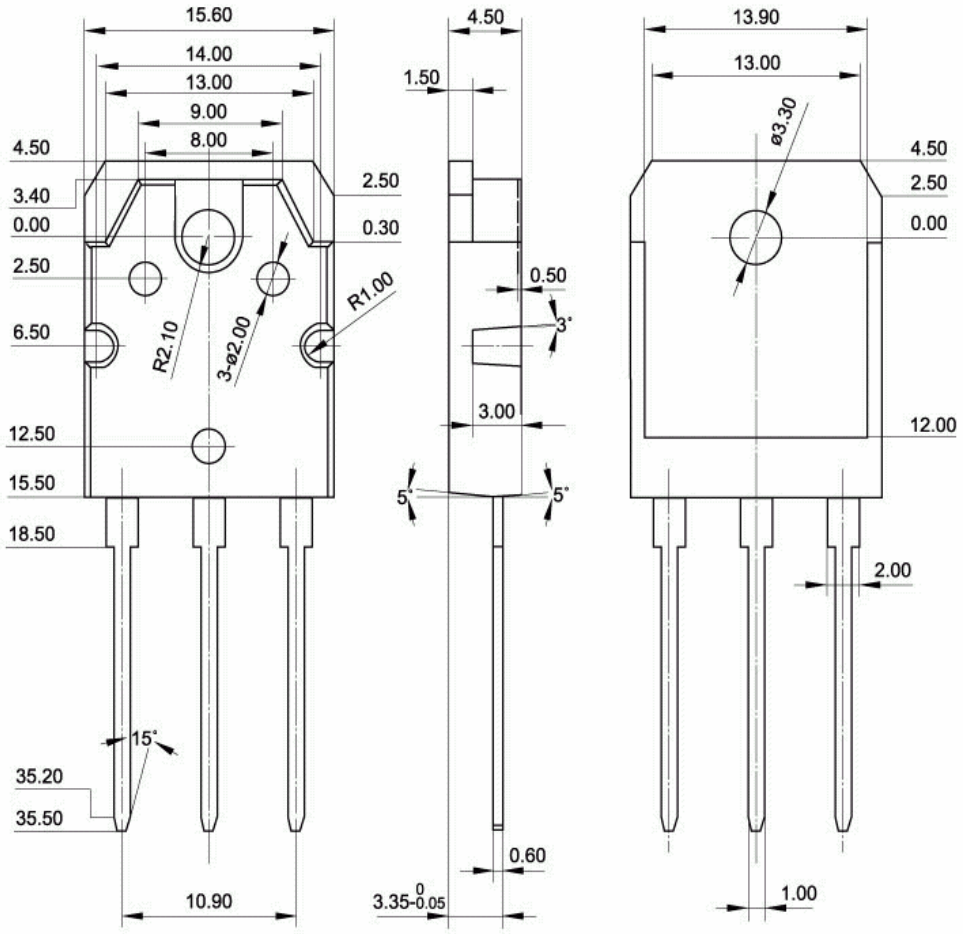

Fig.2 Outline dimensions(unindicated tolerance:±0.10 mm)