Silicon NPN Power Transistors 2SD717

DESCRIPTION

·With TO-3P(I) package
·Low collector saturation voltage
·High collector power dissipation

APPLICATIONS

·High power switching applications
·DC-DC converter and DC-AC inverter applications

PINNING

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

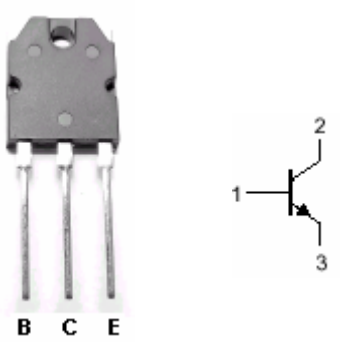

Fig.1 simplified outline (TO-3P(I)) and symbol

Absolute maximum ratings(Ta=25□)

SYMBOL	PARAMETER	CONDITIONS	VALUE	UNIT
V_{CBO}	Collector-base voltage	Open emitter	70	V
V_{CEO}	Collector-emitter voltage	Open base	50	V
V_{EBO}	Emitter-base voltage	Open collector	5	V
I_C	Collector current		10	A
I_B	Base current		2	A
P_T	Total power dissipation	T_C=25□	80	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=50mA ,I_B=0	50			V
V_{CEsat}	Collector-emitter saturation voltage	I_C=6A; I_B=0.3A			0.4	V
V_{BEsat}	Base-emitter saturation voltage	I_C=6A; I_B=0.3A			1.2	V
I_{CBO}	Collector cut-off current	V_{CB}=70V; I_E=0			10	μA
I_{EBO}	Emitter cut-off current	V_{EB}=5V; I_C=0			10	μA
h_{FE-1}	DC current gain	I_C=1A ; V_{CE}=1V	70		240	
h_{FE-2}	DC current gain	I_C=6A ; V_{CE}=1V	30			
f_T	Transition frequency	I_C=1A ; V_{CE}=4V		10		MHz
C_{ob}	Output capacitance	I_E=0 ; V_{CB}=10V ;f=1MHz		350		pF
Switching times						
t_{on}	Turn-on time	I_{B1}=-I_{B2}=0.3A;R_L=5Ω;V_{CC}=30V		0.3		μs
t_s	Storage time			2.5		μs
t_f	Fall time			0.4		μs

◆ **h_{FE-1} Classifications**

O	Y
70-140	120-240

PACKAGE OUTLINE

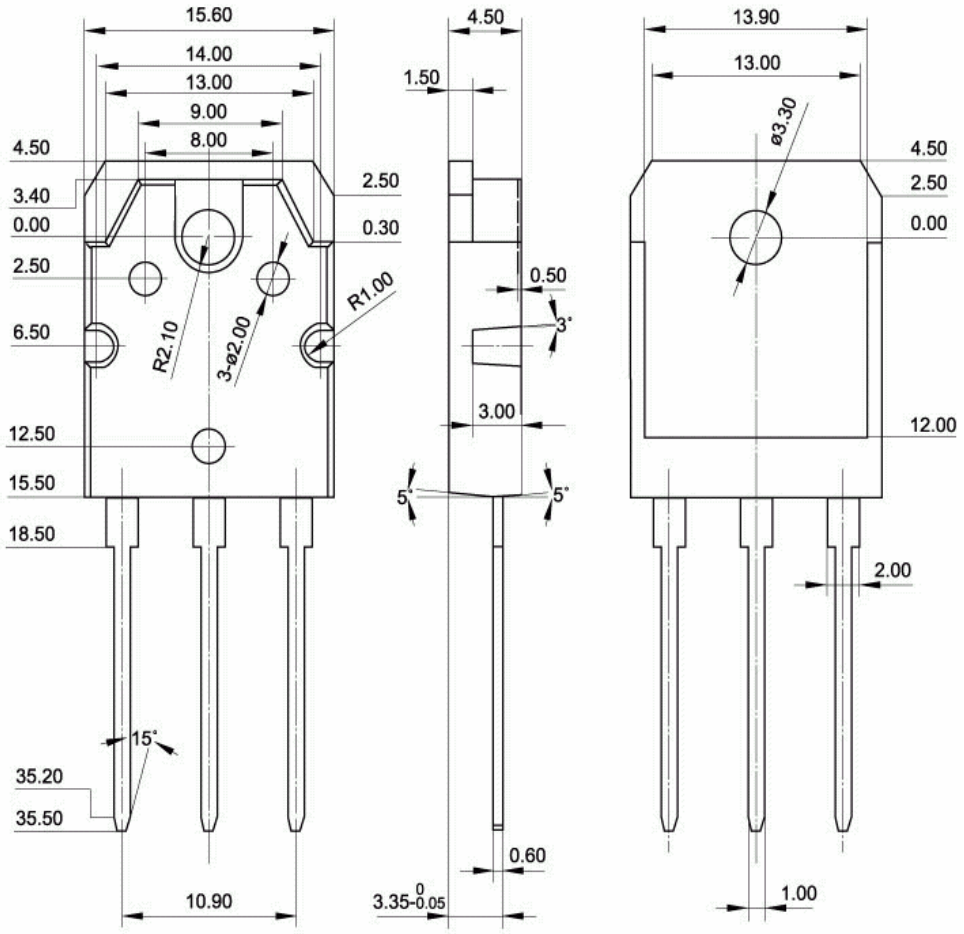

Fig.2 Outline dimensions(unindicated tolerance:±0.10 mm)