Silicon NPN Power Transistors 2SC3852

DESCRIPTION

·With TO-220Fa package
·Low collector saturation voltage
·High h_{FE}

APPLICATIONS

·Driver for solenoid and motor,series regulator and general purpose applications

PINNING

PIN	DESCRIPTION
1	Base
2	Collector
3	Emitter

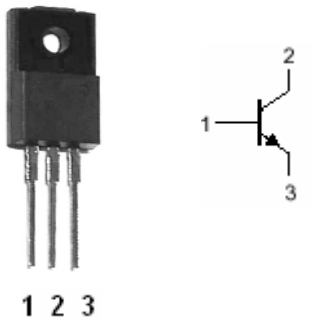

Fig.1 simplified outline (TO-220Fa) and symbol

Absolute maximum ratings (Ta=25□)

SYMBOL	PARAMETER	CONDITIONS	VALUE	UNIT
V_{CBO}	Collector-base voltage	Open emitter	80	V
V_{CEO}	Collector-emitter voltage	Open base	60	V
V_{EBO}	Emitter-base voltage	Open collector	6	V
I_C	Collector current		3	A
I_B	Base current		1	A
P_T	Total power dissipation	T_C=25□	25	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 ;I_B=0	60			V
$V_{CE(sat)}$	Collector-emitter saturation voltage	I_C=2A ;I_B=50mA			0.5	V
I_{CBO}	Collector cut-off current	V_{CB}=80V; I_E=0			10	μA
I_{EBO}	Emitter cut-off current	V_{EB}=6V; I_C=0			100	μA
h_{FE}	DC current gain	I_C=0.5A ; V_{CE}=4V	200			
f_T	Transition frequency	I_C=0.2A ; V_{CE}=12V		15		MHz
C_{OB}	Collector output capacitance	f=1MHz;V_{CB}=10V		50		pF
Switching times						
t_{on}	Turn-on time	I_C=1.0A I_{B1}=15mA ,I_{B2}=-30mA V_{CC}=20V, R_L=20Ω		0.8		μs
t_s	Storage time			3.0		μs
t_f	Fall time			1.2		μs

PACKAGE OUTLINE

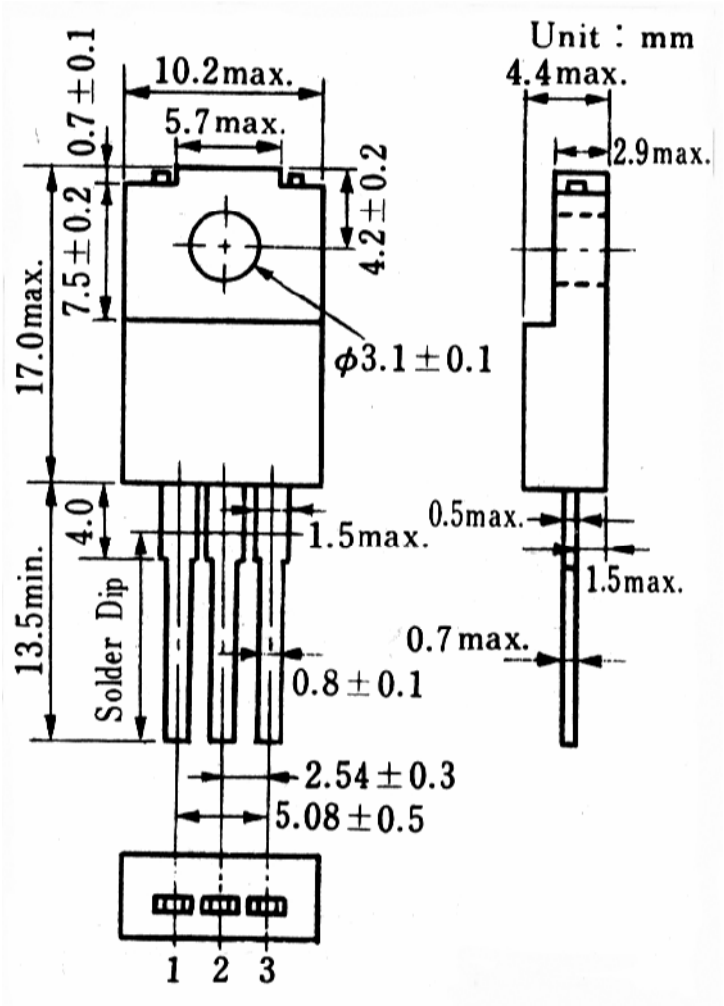

Fig.2 outline dimensions