

Silicon NPN Power Transistors

2SC3842

DESCRIPTION

- With TO-3PML package
- High voltage ,high speed
- High current capability

APPLICATIONS

- For use in TV horizontal output and Power switching applications

PINNING

PIN	DESCRIPTION
1	Base
2	Collector
3	Emitter

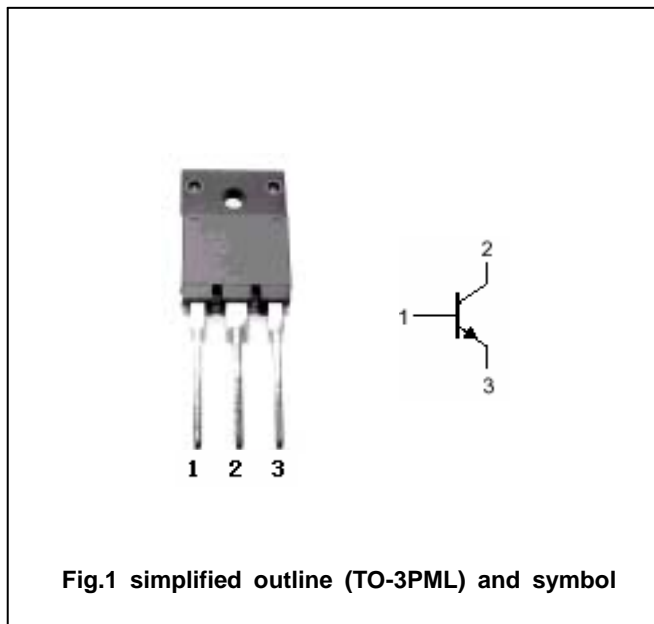


Fig.1 simplified outline (TO-3PML) and symbol

Absolute maximum ratings (Ta=25)

SYMBOL	PARAMETER	CONDITIONS	MAX	UNIT
V_{CBO}	Collector-base voltage	Open emitter	600	V
V_{CEO}	Collector-emitter voltage	Open base	400	V
V_{EBO}	Emitter-base voltage	Open collector	6	V
I_C	Collector current		10	A
P_C	Collector dissipation	$T_C=25$	70	W
T_j	Junction temperature		150	
T_{stg}	Storage temperature		-55~150	

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CHARACTERISTICS

T_j=25 unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
V _{(BR)CEO}	Collector-emitter breakdown voltage	I _C =5mA ; I _B =0	400			V
V _{(BR)CBO}	Collector-base breakdown voltage	I _C =1mA ; I _E =0	600			V
V _{(BR)EBO}	Emitter-base breakdown voltage	I _E =1mA ; I _C =0	6			V
V _{CEsat}	Collector-emitter saturation voltage	I _C =5A ; I _B =1A			1.0	V
V _{BEsat}	Base-emitter saturation voltage	I _C =5A ; I _B =1A			1.5	V
I _{CBO}	Collector cut-off current	V _{CB} =500V ; I _E =0			100	μ A
I _{EBO}	Emitter cut-off current	V _{EB} =5V ; I _C =0			100	μ A
h _{FE}	DC current gain	I _C =5A ; V _{CE} =5V	10		40	
f _T	Transition frequency	I _C =1A ; V _{CE} =10V		32		MHz
C _{OB}	Output capacitance	I _E =0 ; V _{CB} =10V ; f=1MHz		100		pF

