

Silicon NPN Power Transistors

2SD1649

DESCRIPTION

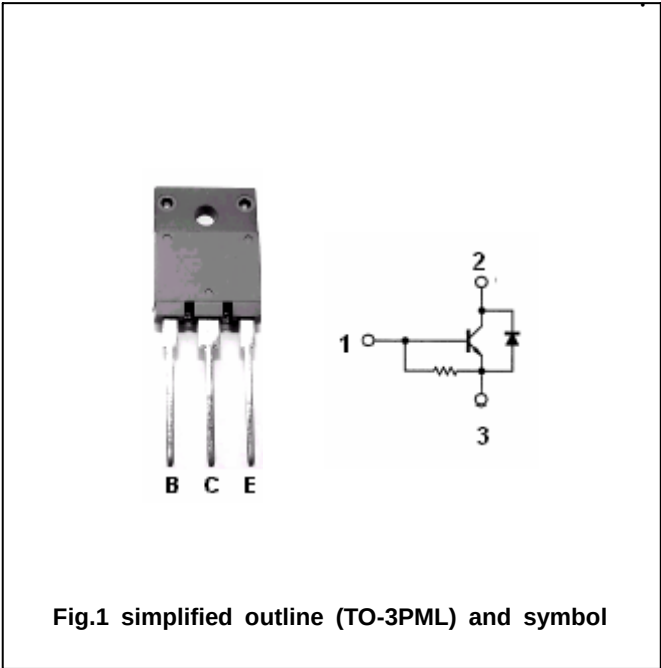
- With TO-3PML package
- Built-in damper diode
- High voltage ,high speed

APPLICATIONS

- For color TV horizontal deflection output applications

PINNING

PIN	DESCRIPTION
1	Base
2	Collector
3	Emitter



Absolute maximum ratings (Ta=25°C)

SYMBOL	PARAMETER	CONDITIONS	VALUE	UNIT
V_{CBO}	Collector-base voltage	Open emitter	1500	V
V_{CEO}	Collector-emitter voltage	Open base	800	V
V_{EBO}	Emitter-base voltage	Open collector	6	V
I_C	Collector current		2.5	A
I_{CM}	Collector current-peak		10	A
P_C	Collector power dissipation		50	W
T_j	Junction temperature		150	°C
T_{stg}	Storage temperature		-55~150	°C

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CHARACTERISTICS

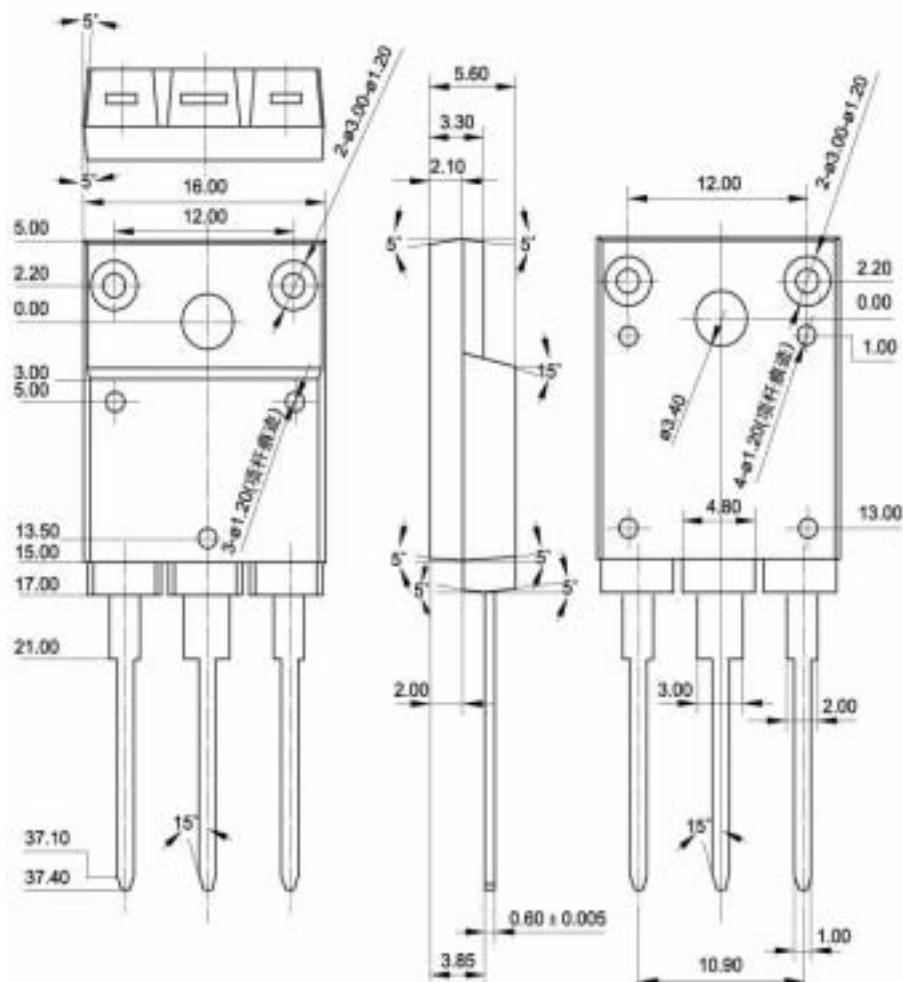
Tj=25°C unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
$V_{(BR)EBO}$	Emitter-base breakdown voltage	$I_E=200mA$, $I_C=0$	7			V
$V_{(BR)CEO}$	Collector-emitter breakdown voltage	$I_C=0.1A$; $R_{BE}=\infty$	800			V
$V_{(BR)CBO}$	Collector-base breakdown voltage	$I_C=5mA$; $I_E=0$	1500			V
V_{CEsat}	Collector-emitter saturation voltage	$I_C=2A$; $I_B=0.6A$			8.0	V
V_{BEsat}	Base-emitter saturation voltage	$I_C=2A$; $I_B=0.6A$			1.5	V
I_{CBO}	Collector cut-off current	$V_{CB}=800V$; $I_E=0$			10	μA
I_{EBO}	Emitter cut-off current	$V_{EB}=4V$; $I_C=0$	40		130	mA
h_{FE}	DC current gain	$I_C=0.5A$; $V_{CE}=5V$	8			
f_T	Transition frequency	$I_C=0.5A$; $V_{CE}=10V$		3		MHz
V_F	Diode forward voltage	$I_F=2.5A$			2.0	V
t_f	Fall time	$I_C=2A$; $I_{B1}=0.6A$; $I_{B2}=-1.2A$ $V_{CC}=200V$; $R_L=100\Omega$			0.4	μs

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PACKAGE OUTLINE

Fig.2 Outline dimensions (unindicated tolerance: ± 0.15 mm)