

Silicon NPN Power Transistors

PMD16K60/80/100

DESCRIPTION

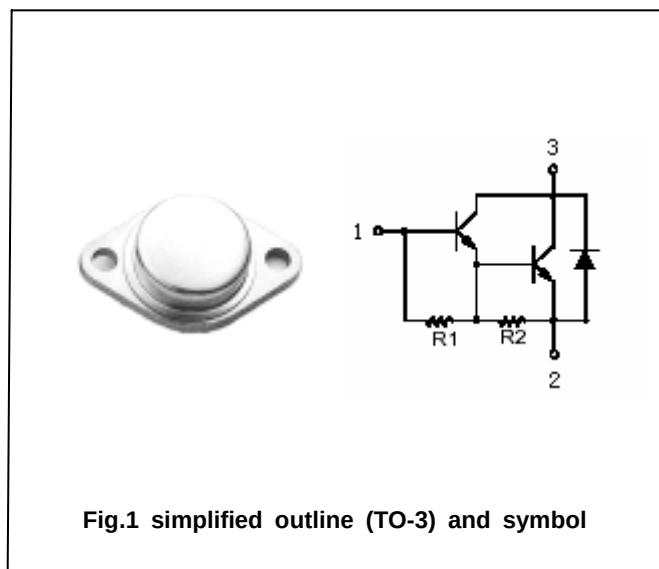
- With TO-3 package
- High DC current gain
- DARLINGTON

APPLICATIONS

- Designed for use in power switching application.

PINNING (See Fig.2)

PIN	DESCRIPTION
1	Base
2	Emitter
3	Collector

Absolute maximum ratings($T_a=25^{\circ}\text{C}$)

SYMBOL	PARAMETER		CONDITIONS	VALUE	UNIT
V_{CBO}	Collector-base voltage	PMD16K60	Open emitter	60	V
		PMD16K80		80	
		PMD16K100		100	
V_{CEO}	Collector-emitter voltage	PMD16K60	Open base	60	V
		PMD16K80		80	
		PMD16K100		100	
V_{EBO}	Emitter-base voltage		Open collector	5	V
I_C	Collector current			20	A
I_{CM}	Collector current(peak)			40	A
I_B	Base current			0.5	A
P_D	Power dissipation		$T_C=25^{\circ}\text{C}$	200	W
T_j	Max. operating Junction temperature			200	$^{\circ}\text{C}$
T_{stg}	Storage temperature			-65~200	$^{\circ}\text{C}$

THERMAL CHARACTERISTICS

SYMBOL	PARAMETER	MAX	UNIT
$R_{th\ j-c}$	Thermal resistance from junction to case	0.875	$^{\circ}\text{C/W}$

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CHARACTERISTICS

T_j=25°C unless otherwise specified

SYMBOL	PARAMETER		CONDITIONS	MIN	TYP.	MAX	UNIT
V _{(BR)CEO}	Collector-emitter breakdown voltage	PMD16K60	I _C =0.1A ; I _B =0	60			V
		PMD16K80		80			
		PMD16K100		100			
V _{CEsat}	Collector-emitter saturation voltage		I _C =10A ; I _B =40mA			2.0	V
V _{BEsat}	Base-emitter saturation voltage		I _C =10A ; I _B =40mA			2.8	V
V _{BE}	Base-emitter on voltage		I _C =10A ; V _{CE} =3V			2.8	V
h _{FE}	DC current gain		I _C =10A ; V _{CE} =3V	1000		20000	
I _{CER}	Collector cut-off current		V _{CE} =Rated V _{CEO} ; R _{BE} =Ω T _C =150°C			1.0 5.0	mA
I _{EBO}	Emitter cut-off current		V _{EB} =5V; I _C =0			2.0	mA
f _T	Transition frequency		I _C =7A ; V _{CE} =3V; f=1.0kHz	4.0			MHz
C _{OB}	Output capacitance		I _E =0 ; V _{CB} =10V; f=1.0MHz			400	pF

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PACKAGE OUTLINE

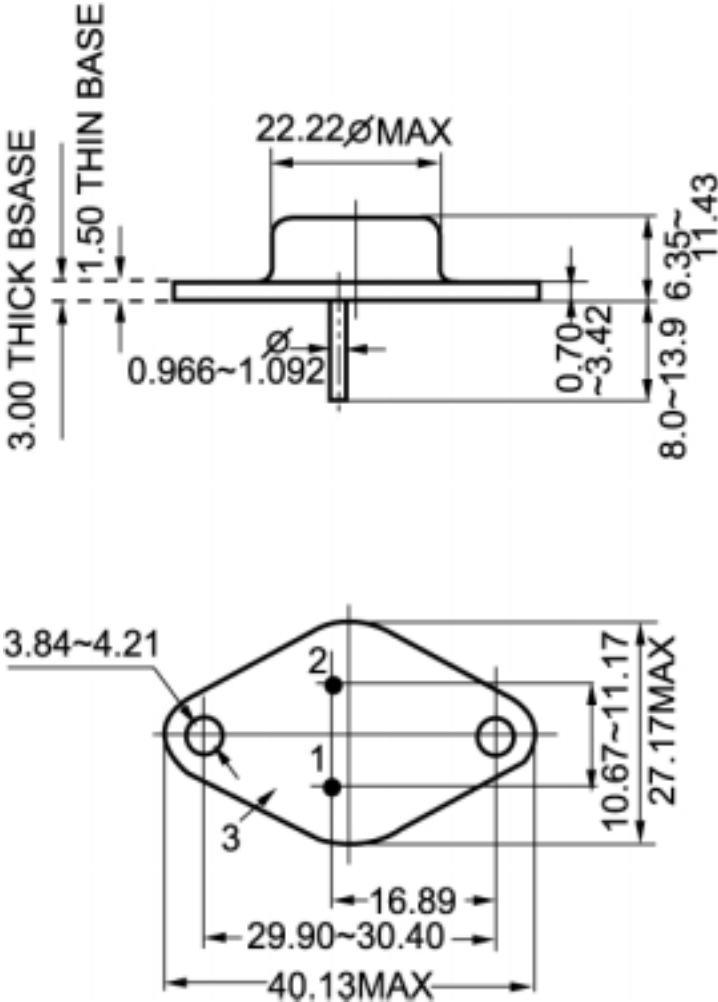


Fig.2 Outline dimensions