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

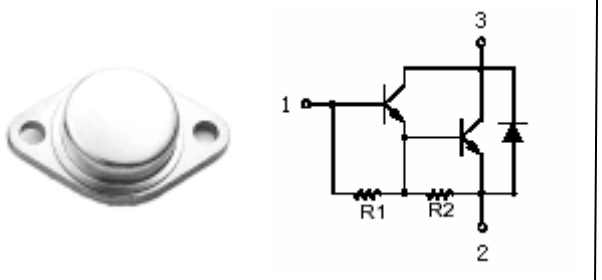

Fig.1 simplified outline (TO-3) and symbol

Absolute maximum ratings(Ta=25℃)

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℃	200	W
T_j	Max. operating Junction temperature			200	℃
T_{stg}	Storage temperature			-65~200	℃

THERMAL CHARACTERISTICS

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

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CHARACTERISTICS

Tj=25℃ 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℃			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

PACKAGE OUTLINE

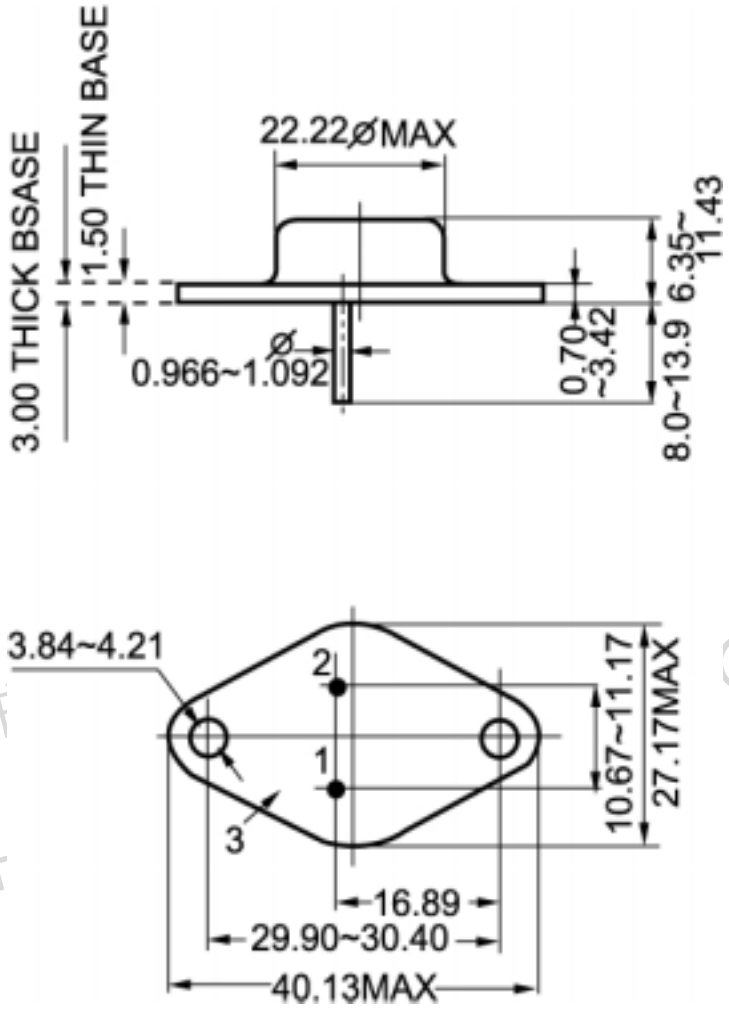

Fig.2 Outline dimensions