

Data Sheet

CentralTM Semiconductor Corp.

145 Adams Avenue, Hauppauge, NY 11788 USA
Tel: (631) 435-1110 • Fax: (631) 435-1824

Manufacturers of World Class Discrete Semiconductors

PMD16K SERIES NPN
PMD17K SERIES PNP

SILICON POWER
DARLINGTON TRANSISTORS

JEDEC TO-3 CASE

DESCRIPTION

The CENTRAL SEMICONDUCTOR PMD16K/PMD17K series types are silicon NPN/PNP darlington power transistors manufactured by the eptaxial-base process, mounted in a hermetically sealed metal package, and designed for power switching applications. These devices are designed to be electrical/mechanical equivalents to Lambda part numbers.

MAXIMUM RATINGS (T_C=25°C)

	SYMBOL	PMD16K60 PMD17K60	PMD16K80 PMD17K80	PMD16K100 PMD17K100	UNIT
Collector-Base Voltage	V _{CB0}	60	80	100	V
Collector-Emitter Voltage	V _{CE0}	60	80	100	V
Emitter-Base Voltage	V _{EB0}	5.0	5.0	5.0	V
Collector Current	I _C	20	20	20	A
Collector Current (Peak)	I _{CM}	40	40	40	A
Base Current	I _B	0.5	0.5	0.5	A
Power Dissipation	P _D	200	200	200	W
Operating and Storage Junction Temperature	T _J , T _{STG}	-65 TO +200			°C
Thermal Resistance	θ _{JC}	0.875			°C/W

ELECTRICAL CHARACTERISTICS (T_C=25°C unless otherwise noted)

SYMBOL	TEST CONDITIONS	MIN	MAX	UNIT
I _{CER}	V _{CE} =Rated V _{CE0} , R _{BE} =1.0KΩ		1.0	mA
I _{CER}	V _{CE} =Rated V _{CE0} , R _{BE} =1.0KΩ, T _C =150°C		5.0	mA
I _{EBO}	V _{EB} =5.0V		2.0	mA
BV _{CE0}	I _C =100mA (PMD16K60, PMD17K60)	60		V
BV _{CE0}	I _C =100mA (PMD16K80, PMD17K80)	80		V
BV _{CE0}	I _C =100mA (PMD16K100, PMD17K100)	100		V
V _{CE} (SAT)	I _C =10A, I _B =40mA		2.0	V
V _{BE} (SAT)	I _C =10A, I _B =40mA		2.8	V
V _{BE} (ON)	V _{CE} =3.0V, I _C =10A		2.8	V
h _{FE} (PMD16K series)	V _{CE} =3.0V, I _C =10A	1000	20,000	
h _{FE} (PMD17K series)	V _{CE} =3.0V, I _C =10A	800	20,000	
h _{fe}	V _{CE} =3.0V, I _C =7.0A, f=1.0kHz	300	-	
f _T	V _{CE} =3.0V, I _C =7.0A, f=1.0MHz	4.0		MHz
C _{ob}	V _{CB} =10V, I _E =0, f=1.0MHz		400	pF