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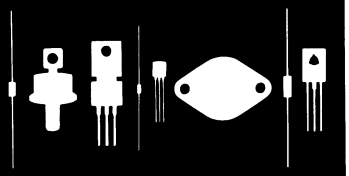

PMD10K SERIES (NPN)
PMD11K SERIES (PNP)

SILICON POWER
DARLINGTON TRANSISTORS

JEDEC TO-3 CASE

DESCRIPTION

The CENTRAL SEMICONDUCTOR PMD10K/PMD11K series types are silicon NPN/PNP darlington power transistors manufactured by the epitaxial-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	PMD10K60 PMD11K60	PMD10K80 PMD11K80	PMD10K100 PMD11K100	UNIT
Collector-Base Voltage	V_{CBO}	60	80	100	V
Collector-Emitter Voltage	V_{CEO}	60	80	100	V
Emitter-Base Voltage	V_{EBO}	5.0	5.0	5.0	V
Collector Current	I_C	12	12	12	A
Collector Current (Peak)	I_{CM}	20	20	20	A
Base Current	I_B	0.2	0.2	0.2	A
Power Dissipation	P_D	150	150	150	W
Operating and Storage Junction Temperature	T_J, T_{STG}		-65 TO +200		°C
Thermal Resistance	Θ_{JC}		1.17		°C/W

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

SYMBOL	TEST CONDITIONS	MIN	MAX	UNIT
I_{CER}	V_{CE}=Rated V_{CEO}, R_{BE}=1.0KΩ		1.0	mA
I_{CER}	V_{CE}=Rated V_{CEO}, R_{BE}=1.0KΩ, T_C=150°C		5.0	mA
I_{EBO}	V_{EB}=5.0V		2.0	mA
BV_{CEO}	I_C=100mA (PMD10K60,PMD11K60)	60		V
BV_{CEO}	I_C=100mA (PMD10K80,PMD11K80)	80		V
BV_{CEO}	I_C=100mA (PMD10K100,PMD11K100)	100		V
$V_{CE(SAT)}$	I_C=6.0A, I_B=24mA		2.0	V
$V_{BE(SAT)}$	I_C=6.0A, I_B=24mA		2.8	V
$V_{BE(ON)}$	V_{CE}=3.0V, I_C=6.0A		2.8	V
h_{FE} (PMD10K series)	V_{CE}=3.0V, I_C=6.0A	1000	20,000	
h_{FE} (PMD11K series)	V_{CE}=3.0V, I_C=6.0A	800	20,000	
h_{fe}	V_{CE}=3.0V, I_C=5.0A, f=1.0kHz	300	-	
f_T	V_{CE}=3.0V, I_C=5.0A, f=1.0MHz	4.0		MHz
C_{ob}	V_{CB}=10V, I_E=0, f=1.0MHz		300	pF