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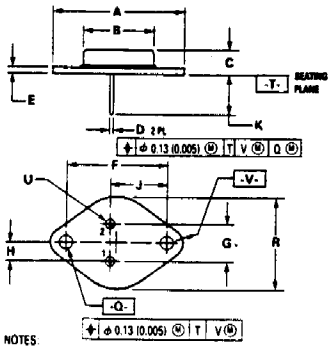
PMD11K100

PNP POWER DARLINGTON

ABSOLUTE MAXIMUM RATINGS

PARAMETER	SYMBOL	MAXIMUM	UNITS
Collector Emitter Voltage	V_{CEO}	100	Vdc
Collector Base Voltage	V_{CBO}	100	Vdc
Emitter Base Voltage	V_{EBO}	5	Vdc
Collector Current Continuous Peak	I_C	 12 20	Adc
Base Current	I_B	0.2	Adc
Thermal Resistance	θ_{JC}	1.0	°C/Watt
Total Internal Power Dissipation @ T_C = 50°C[1]	P_D	150	Watts
Operating Junction and Storage Temperature	T_J T_{STG}	− 65 to + 200	°C

(1) For operation above T_C = 50°C, derate @ 1.0 W/°C.



NOTES:
1. DIMENSIONING AND TOLERANCING PER ANSI Y14.5M, 1982.
2. CONTROLLING DIMENSION: INCH.
3. ALL RULES AND NOTES ASSOCIATED WITH REFERENCED TO-204AA OUTLINE SHALL APPLY.

DIM	MILLIMETERS MIN	MILLIMETERS MAX	INCHES MIN	INCHES MAX
A	—	39.37	—	1.550
B	—	21.08	—	0.830
C	6.35	8.25	0.250	0.325
D	0.97	1.09	0.038	0.043
E	1.40	1.77	0.055	0.070
F	30.15 BSC		1.187 BSC	
G	10.92 BSC		0.430 BSC	
H	5.46 BSC		0.215 BSC	
J	16.89 BSC		0.665 BSC	
K	11.18	12.19	0.440	0.480
Q	3.84	4.19	0.151	0.165
R	—	26.67	—	1.050
U	4.83	5.33	0.190	0.210
V	3.84	4.19	0.151	0.165

STYLE 1:
PIN 1. BASE
2. EMITTER
CASE: COLLECTOR

TO-204AA
(TO-3)

All parameters are guaranteed at T_J = 0 to 200°C, unless otherwise specified.

Parameter	Symbol	Test Conditions	Minimum	Maximum	Units
ON CHARACTERISTICS					
Collector Emitter Saturation Voltage[1]	$V_{CE(sat)}$	I_C = 6 Adc; I_B = 24 mAdc		2.0	Vdc
Base Emitter Turn-on Voltage[1]	$V_{BE(on)}$	I_C = 6 Adc; V_{CE} = 3 Vdc		2.8	Vdc
Base Emitter Saturation[1]	$V_{BE(sat)}$	I_C = 6 Adc; I_B = 24 mAdc		2.8	Vdc
DC Current Gain[1]	h_{FE}	I_C = 6 Adc; V_{CE} = 3 Vdc T_J = 25°C	800	20,000	
OFF CHARACTERISTICS					
Forward Bias Secondary Breakdown Current	$I_{s/b}$	V_{CE} = 30 Vdc; T_A = 25°C 1 sec non-repetitive pulse	5.0		Adc
Collector Emitter Breakdown Voltage[1] (Base Open)	$V_{(BR)CEO}$	I_{CE} = 100 mAdc; T_J = 25°C	100		Vdc
Collector Emitter Sustaining Voltage[1]	$V_{(BR)CEO}$	I_{CE} = 100 mAdc; R_{BE} = 2.2kΩ	100		Vdc
Emitter Base Leakage Current	I_{EBO}	V_{EB} = 5 Vdc; I_C = 0A	3.0		mAdc
Collector Emitter Leakage Current	I_{CER}	V_{CE} = 67 Vdc; R_{BE} = 2.2kΩ		5.0	mAdc
DYNAMIC CHARACTERISTICS					
Output Capacitance	C_{ob}	V_{CB} = 10 Vdc; I_E = 0 Adc f = 1 MHz; T_J = 25°C		300	pF
Small Signal Current Gain	h_{fe}	I_C = 5 Adc; V_{CE} = 3 Vdc f = 1 kHz; T_J = 25°C	300		
Common Emitter Short Circuit Forward Transfer Ratio	h_{fe}	I_C = 5 Adc; V_{CE} = 3 Vdc f = 1 MHz; T_J = 25°C	4		

(1) Pulse tested with pulse width ≤ 300 μS and duty cycle ≤ 2.0%.