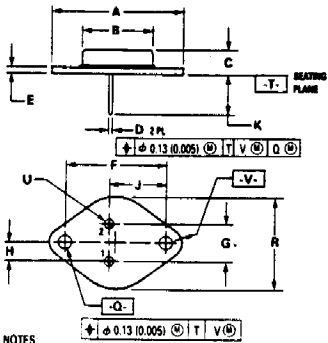


PMD11K100
PNP POWER DARLINGTON

ABSOLUTE
MAXIMUM RATINGS

PARAMETER	SYMBOL	MAXIMUM	UNITS
Collector Emitter Voltage	V_{CE0}	100	Vdc
Collector Base Voltage	V_{CB0}	100	Vdc
Emitter Base Voltage	V_{EB0}	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 @ $T_C = 50^\circ\text{C}$ ¹	P_D	150	Watts
Operating Junction and Storage Temperature	T_J T_{STG}	- 65 to + 200	°C

⁽¹⁾ For operation above $T_C = 50^\circ\text{C}$, derate @ 1.0 W/°C.

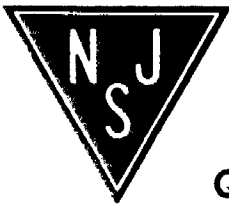


- NOTES
1. DIMENSIONING AND TOLERANCING PER ANSI Y14.5M, 1982.
 2. CONTROLLING DIMENSION: INCH.
 3. ALL RULES AND NOTES ASSOCIATED WITH REFERENCED TO-204AA OUTLINE SHALL APPLY.

DIM	MILLIMETERS		INCHES	
	MIN	MAX	MIN	MAX
A	—	29.37	—	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	.77	0.055	0.070
F	30.15 BSC		1.187 BSC	
G	10.92 BSC		0.430 BSC	
H	3.46 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)



NJ Semi-Conductors reserves the right to change test conditions, parameter limits and package dimensions without notice. Information furnished by NJ Semi-Conductors is believed to be both accurate and reliable at the time of going to press. However, NJ Semi-Conductors assumes no responsibility for any errors or omissions discovered in its use. NJ Semi-Conductors encourages customers to verify that datasheets are current before placing orders.

Quality Semi-Conductors

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

(1) Pulse tested with pulse width $\leq 300 \mu\text{s}$ and duty cycle $\leq 2.0\%$.