

PNP POWER DARLINGTON TRANSISTOR

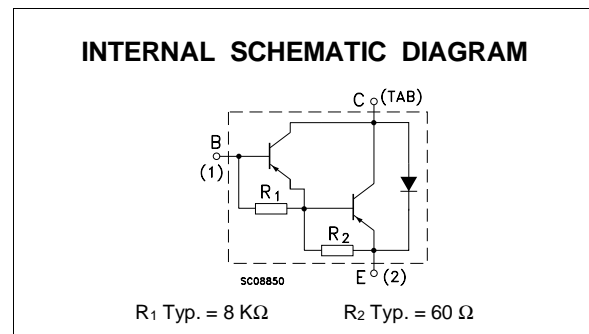
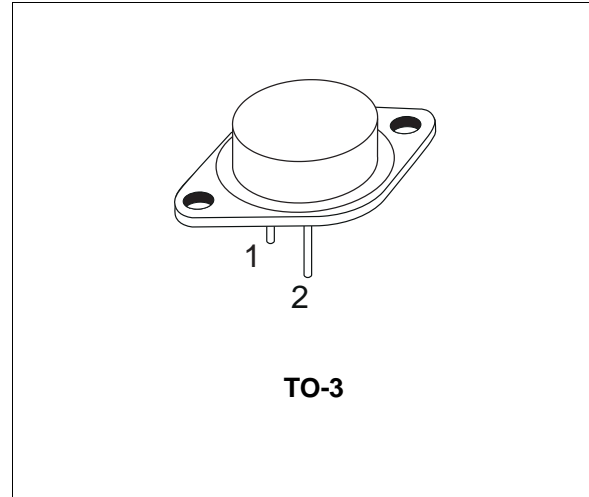
- INTEGRATED ANTIPARALLEL COLLECTOR-EMITTER DIODE

APPLICATIONS

- LINEAR AND SWITCHING INDUSTRIAL EQUIPMENT

DESCRIPTION

The FW26025A1 is a silicon Epitaxial-Base PNP power transistor in monolithic Darlingtion configuration mounted in Jedec TO-3 metal case. It is intended for general purpose amplifier and low frequency switching applications.



ABSOLUTE MAXIMUM RATINGS

Symbol	Parameter	Value	Unit
V _{CBO}	Collector-Base Voltage (I _E = 0)	100	V
V _{CEO}	Collector-Emitter Voltage (I _B = 0)	100	V
V _{EBO}	Emitter-Base Voltage (I _C = 0)	5	V
I _C	Collector Current	20	A
I _{CM}	Collector Peak Current	40	A
I _B	Base Current	0.5	A
P _{tot}	Total Dissipation at T _c ≤ 25 °C	160	W
T _{stg}	Storage Temperature	-65 to 200	°C
T _j	Max. Operating Junction Temperature	200	°C

THERMAL DATA

$R_{thj-case}$	Thermal Resistance Junction-case	Max	1.09	$^{\circ}C/W$
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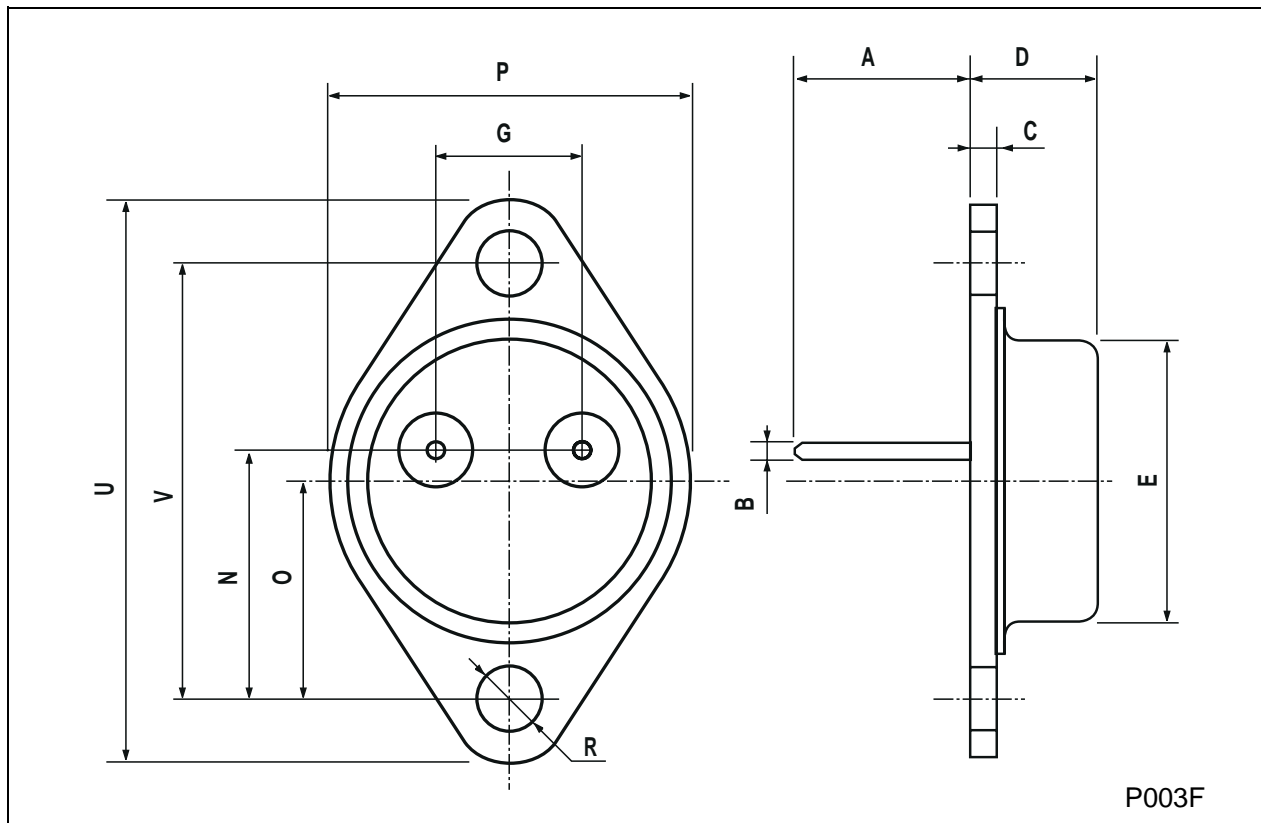
ELECTRICAL CHARACTERISTICS ($T_{case} = 25^{\circ}C$ unless otherwise specified)

Symbol	Parameter	Test Conditions	Min.	Typ.	Max.	Unit
I_{CEV}	Collector Cut-off Current ($V_{BE} = -1.5V$)	$V_{CE} = 100 V$ $V_{CE} = 100 V \quad T_C = 150^{\circ}C$			0.5 5	mA mA
I_{CEO}	Collector Cut-off Current ($I_B = 0$)	$V_{CE} = 50 V$			1	mA
I_{EBO}	Emitter Cut-off Current ($I_C = 0$)	$V_{EB} = 5 V$			2	mA
$V_{CEO(sus)*}$	Collector-Emitter Sustaining Voltage ($I_B = 0$)	$I_C = 2 mA$ $I_C = 100 mA$	90 100			V V
$V_{CE(sat)*}$	Collector-Emitter Saturation Voltage	$I_C = 10 A \quad I_B = 40 mA$ $I_C = 20 A \quad I_B = 200 mA$			2 3	V V
$V_{BE(sat)*}$	Base-Emitter Saturation Voltage	$I_C = 20 A \quad I_B = 200 mA$			4	V
V_{BE*}	Base-Emitter Voltage	$I_C = 10 A \quad V_{CE} = 3 V$			2.8	V
h_{FE*}	DC Current Gain	$I_C = 2 A \quad V_{CE} = 3 V$ $I_C = 10 A \quad V_{CE} = 3 V$ $I_C = 30 A \quad V_{CE} = 3 V$	5000 750 200		18000	
h_{fe}	Small Signal Current Gain	$I_C = 3 A \quad V_{CE} = 10 V \quad f = 1KHz$	300			
C_{CBO}	Collector Base Capacitance	$I_E = 0 \quad V_{CB} = 10 V \quad f = 100KHz$			600	pF

* Pulsed: Pulse duration = 300 μs , duty cycle 1.5 %

TO-3 MECHANICAL DATA

DIM.	mm			inch		
	MIN.	TYP.	MAX.	MIN.	TYP.	MAX.
A	11.00		13.10	0.433		0.516
B	0.97		1.15	0.038		0.045
C	1.50		1.65	0.059		0.065
D	8.32		8.92	0.327		0.351
E	19.00		20.00	0.748		0.787
G	10.70		11.10	0.421		0.437
N	16.50		17.20	0.649		0.677
P	25.00		26.00	0.984		1.023
R	4.00		4.09	0.157		0.161
U	38.50		39.30	1.515		1.547
V	30.00		30.30	1.187		1.193



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