



PRODUCT NAME : 2N6426 NPN Darlingto
n Transistor (Pack of 5)

PRICE : Rs 20.00

SKU : RM2106



NOTE: THE PRODUCT MAY BE DIFFERENT FROM IMAGE SHOWN. Copyrights by Robomart.com

DESCRIPTION

Features

- Collector-Emitter Volt (V_{ce0}): 40V
- Collector-Base Volt (V_{cbo}): 40V
- Collector Current (I_c): 0.5A
- h_{fe} : 30,000-300,000 @ 100mA
- Power Dissipation (P_{tot}): 625mW
- Type: NPN

2N6426, 2N6427

2N6426 is a Preferred Device

Darlington Transistors

NPN Silicon

Features

- These are Pb-Free Devices*

MAXIMUM RATINGS

Rating	Symbol	Value	Unit
Collector – Emitter Voltage	V_{CEO}	40	Vdc
Collector – Base Voltage	V_{CBO}	40	Vdc
Emitter – Base Voltage	V_{EBO}	12	Vdc
Collector Current – Continuous	I_C	500	mA _{dc}
Total Device Dissipation @ $T_A = 25^\circ\text{C}$ Derate above 25°C	P_D	625 5.0	mW mW/ $^\circ\text{C}$
Total Device Dissipation @ $T_C = 25^\circ\text{C}$ Derate above 25°C	P_D	1.5 12	W mW/ $^\circ\text{C}$
Operating and Storage Junction Temperature Range	T_J, T_{stg}	-55 to +150	$^\circ\text{C}$

THERMAL CHARACTERISTICS

Characteristic	Symbol	Max	Unit
Thermal Resistance, Junction-to-Ambient	$R_{\theta JA}$	200	$^\circ\text{C}/\text{W}$
Thermal Resistance, Junction-to-Case	$R_{\theta JC}$	83.3	$^\circ\text{C}/\text{W}$

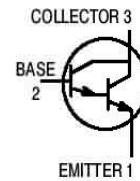
Stresses exceeding Maximum Ratings may damage the device. Maximum Ratings are stress ratings only. Functional operation above the Recommended Operating Conditions is not implied. Extended exposure to stresses above the Recommended Operating Conditions may affect device reliability.

*For additional information on our Pb-Free strategy and soldering details, please download the ON Semiconductor Soldering and Mounting Techniques Reference Manual, SOLDERRM/D.

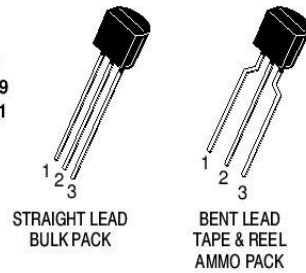


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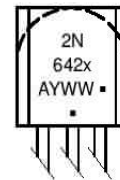
<http://onsemi.com>



TO-92
CASE 29
STYLE 1



MARKING DIAGRAM



- x = 6 or 7
- A = Assembly Location
- Y = Year
- WW = Work Week
- = Pb-Free Package

(Note: Microdot may be in either location)

ORDERING INFORMATION

See detailed ordering and shipping information in the package dimensions section on page 5 of this data sheet.

Preferred devices are recommended choices for future use and best overall value.

2N6426, 2N6427

ELECTRICAL CHARACTERISTICS ($T_A = 25^\circ\text{C}$ unless otherwise noted)

Characteristic	Symbol	Min	Typ	Max	Unit
OFF CHARACTERISTICS					
Collector – Emitter Breakdown Voltage, (Note 1) ($I_C = 10 \text{ mAdc}$, $V_{BE} = 0$)	$V_{(BR)CEO}$	40	–	–	Vdc
Collector – Base Breakdown Voltage ($I_C = 100 \mu\text{Adc}$, $I_E = 0$)	$V_{(BR)CBO}$	40	–	–	Vdc
Emitter – Base Breakdown Voltage ($I_E = 10 \mu\text{Adc}$, $I_C = 0$)	$V_{(BR)EBO}$	12	–	–	Vdc
Collector Cutoff Current ($V_{CE} = 25 \text{ Vdc}$, $I_B = 0$)	I_{CES}	–	–	1.0	μAdc
Collector Cutoff Current ($V_{CB} = 30 \text{ Vdc}$, $I_E = 0$)	I_{CBO}	–	–	50	nAdc
Emitter Cutoff Current ($V_{EB} = 10 \text{ Vdc}$, $I_C = 0$)	I_{EBO}	–	–	50	nAdc

ON CHARACTERISTICS

DC Current Gain, (Note 1) ($I_C = 10 \text{ mAdc}$, $V_{CE} = 5.0 \text{ Vdc}$)	2N6426	h_{FE}	20,000	–	200,000	–
	2N6427		10,000	–	100,000	
($I_C = 100 \text{ mAdc}$, $V_{CE} = 5.0 \text{ Vdc}$)	2N6426	30,000	–	300,000		
	2N6427	20,000	–	200,000		
($I_C = 500 \text{ mAdc}$, $V_{CE} = 5.0 \text{ Vdc}$)	2N6426	20,000	–	200,000		
	2N6427	14,000	–	140,000		
Collector – Emitter Saturation Voltage ($I_C = 50 \text{ mAdc}$, $I_B = 0.5 \text{ mAdc}$) ($I_C = 500 \text{ mAdc}$, $I_B = 0.5 \text{ mAdc}$)	$V_{CE(sat)}$	–	0.71 0.9	1.2 1.5	Vdc	
Base – Emitter Saturation Voltage ($I_C = 500 \text{ mAdc}$, $I_B = 0.5 \text{ mAdc}$)	$V_{BE(sat)}$	–	1.52	2.0	Vdc	
Base – Emitter On Voltage ($I_C = 50 \text{ mAdc}$, $V_{CE} = 5.0 \text{ Vdc}$)	$V_{BE(on)}$	–	1.24	1.75	Vdc	

SMALL-SIGNAL CHARACTERISTICS

Output Capacitance ($V_{CB} = 10 \text{ Vdc}$, $I_E = 0$, $f = 1.0 \text{ MHz}$)	C_{obo}	–	5.4	7.0	pF	
Input Capacitance ($V_{EB} = 1.0 \text{ Vdc}$, $I_C = 0$, $f = 1.0 \text{ MHz}$)	C_{ibo}	–	10	15	pF	
Input Impedance ($I_C = 10 \text{ mAdc}$, $V_{CE} = 5.0 \text{ Vdc}$, $f = 1.0 \text{ kHz}$)	h_{ie}	2N6426 2N6427	100 50	– –	2000 1000	k Ω
Small-Signal Current Gain ($I_C = 10 \text{ mAdc}$, $V_{CE} = 5.0 \text{ Vdc}$, $f = 1.0 \text{ kHz}$)	h_{fe}	2N6426 2N6427	20,000 10,000	– –	– –	–
Current – Gain – High Frequency ($I_C = 10 \text{ mAdc}$, $V_{CE} = 5.0 \text{ Vdc}$, $f = 100 \text{ MHz}$)	$ h_{fe} $	2N6426 2N6427	1.5 1.3	2.4 2.4	– –	–
Output Admittance ($I_C = 10 \text{ mAdc}$, $V_{CE} = 5.0 \text{ Vdc}$, $f = 1.0 \text{ kHz}$)	h_{oe}		–	–	1000	μmhos
Noise Figure ($I_C = 1.0 \text{ mAdc}$, $V_{CE} = 5.0 \text{ Vdc}$, $R_S = 100 \text{ k}\Omega$, $f = 1.0 \text{ kHz}$)	NF		–	3.0	10	dB

1. Pulse Test: Pulse Width $\leq 300 \mu\text{s}$; Duty Cycle $\leq 2.0\%$.

