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2N5954-2N5956, 2N6372-2N6374, 2N6465-2N6468, 40829-40831

Silicon N-P-N and P-N-P Medium-Power Transistors

General-Purpose Types for Switching Applications

2N5954, -2N5955, and -2N5956 are multiple epitaxial p-n-p transistors. 2N6372, -2N6373, and -2N6374 are multi-epitaxial n-p-n transistors. They are complements to 2N5954, 2N5955, and 2N5956.

The 2N6465 and 2N6466 are multiple-epitaxial n-p-n transistors. They are complements to the 2N6467, and 2N6468, multiple-epitaxial p-n-p transistors. These devices differ in voltage ratings and in the currents at which the parameters are controlled.

All are supplied in the JEDEC TO-66 package.

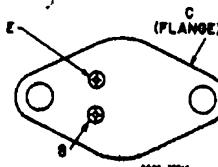
MAXIMUM RATINGS, Absolute-Maximum Values:

	N-P-N 2N6374	2N6373	2N6372	2N6465	2N6466
P-N-P	2N5956 [*] 40831 [*]	2N5955 [*] 40830 [*]	2N5954 [*] 40829 [*]	2N6467 [*]	2N6468 [*]
V _{CEO}	50	70	90	110	130
V _{CEx} (sus) V _{BE} = -1.5 V, R _{BE} = 100 Ω	50	70	90	110	130
V _{CER} (sus) R _{BE} = 100 Ω	45	65	85	105	125
V _{CEO} (sus)	40	60	80	100	120
V _{ESO}	5	5	5	5	5
g _C	6	6	6	4	4
g _E	2	2	2	2	2
T _J	At T _C up to 25°C	40 (2N6374)	40 (2N6373)	40 (2N6372)	40
	(2N5956)	(2N5955)	(2N5954)		W
	At T _A up to 25°C	5.8 (40831)	5.8 (40830)	5.8 (40829)	-
	At T _C above 25°C	Derate linearly to 200°C			W
T _J , T _{mg}		-65 to +200			°C
T _L	At distances \geq 1/32 in. (0.8 mm) from mounting plane for 10 s max.		+235		°C

Features:

- 2N5954-2N5956 complements to 2N6372-2N6374
- 2N6465, 2N6466 complements to 2N6467, 2N6468
- Low saturation voltages
- Maximum-safe-area-of-operation curves
- Thermal-cycle ratings
- Hermetically-sealed JEDEC TO-66 package

TERMINAL DESIGNATIONS



JEDEC TO-66
2N5954-2N5956 2N6372-2N6374, 2N6465-2N6468



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.

ELECTRICAL CHARACTERISTICS, At Case Temperature (T_C) = 25°C unless otherwise specified

CHARACTERISTIC	TEST CONDITIONS				LIMITS						UNITS	
	VOLTAGE		CURRENT		2N6374 2N5956♦ 40831♦		2N6373 2N5955♦ 40830♦		2N6372 2N5954♦ 40829♦			
	V _{CE}	V _{BE}	I _C	I _B	Min.	Max.	Min.	Max.	Min.	Max.		
• I _{CER} $R_{BE} = 100 \Omega$	35 55 75				—	100	—	—	—	—	μA	
• I _{CEX} $R_{BE} = 100 \Omega$	45 65 85	-1.5 -1.5 -1.5			—	100	—	—	—	—	μA	
• $R_{BE} = 100 \Omega$, $T_C = 150^\circ C$	45 65 85	-1.5 -1.5 -1.5			—	2	—	—	—	—	mA	
• I _{CEO}	25 45 65				—	1	—	—	—	—	mA	
• I _{EBO}		-5			—	0.1	—	0.1	—	0.1	mA	
• h _{FE}	4 4 4 4	3 ^a 2.5 ^a 2 ^a 6 ^a			20 — — 5	100 — — —	20 100 — 5	— — 20 —	— — 100 5	— — — —		
• V _{CEO(sus)}		0.1 ^a			40 ^b	—	60 ^b	—	80 ^b	—	V	
• V _{CER(sus)} $R_{BE} = 100 \Omega$		0.1 ^a			45 ^b	—	65 ^b	—	85 ^b	—		
• V _{CEX(sus)} $R_{BE} = 100 \Omega$		-1.5 0.1 ^a			50 ^b	—	70 ^b	—	90 ^b	—		
• V _{BE} All types All types All types 2N6372-2N6374	4 4 4 4	3 ^a 2.5 ^a 2 ^a 6 ^a			— — — —	2 — — 3	— — — —	— 2 — 3	— — — 3	— — — 3	V	
• V _{CE(sat)}			3 ^a 2.5 ^a 2 ^a	0.3 0.25 0.2	— — —	1 — —	— 1 —	— — —	— — —	— — 1	V	
• h _{fe} $f=1 \text{ MHz}$ 2N6372-2N6374 2N5954-56,40829-31	4 -4		1 -1		4 5	— —	4 5	— —	4 5	— —		
• h _{fe} $f=1 \text{ kHz}$	4		0.5		25	—	25	—	25	—		
R _{θJC} 2N5954-56, 2N6372-74					—	4.3	—	4.3	—	4.3	°C/W	
R _{θJA} 40829-40831					—	30	—	30	—	30		