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2N6226 (SILICON)
2N6227
2N6228

6 AMPERE POWER TRANSISTORS

PNP SILICON

100-120-140 VOLTS
150 WATTS

HIGH-VOLTAGE HIGH-POWER PNP SILICON TRANSISTORS

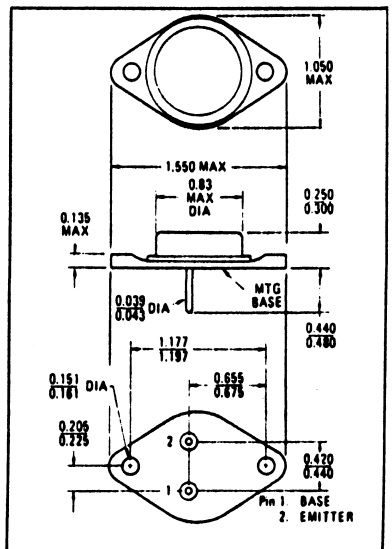
. . . designed for use in high-power audio amplifier applications and high-voltage switching regulator circuits.

- High Collector-Emitter Sustaining Voltage –
  $V_{CEO(sus)}$ = 100 Vdc (Min) – 2N6226
  = 120 Vdc (Min) – 2N6227
  = 140 Vdc (Min) – 2N6228
- DC Current Gain – @ I_C = 3.0 Adc
  h_{FE} = 25 (Min) – 2N6226
  = 20 (Min) – 2N6227
  = 15 (Min) – 2N6228
- Low Collector-Emitter Saturation Voltage –
  $V_{CE(sat)}$ = 1.0 Vdc (Max) @ I_C = 3.0 Adc
- Complement to NPN Transistors 2N5758, 2N5759, 2N5760

*MAXIMUM RATINGS

Rating	Symbol	2N6226	2N6227	2N6228	Unit
Collector-Emitter Voltage	V_{CEO}	100	120	140	Vdc
Collector-Base Voltage	V_{CB}	100	120	140	Vdc
Emitter-Base Voltage	V_{EB}	← 7.0 →			Vdc
Collector Current – Continuous	I_C	← 6.0 →			Adc
Peak		← 10 →			
Base Current	I_B	← 4.0 →			Adc
Total Device Dissipation @ T_C = 25°C	P_D	← 150 →			Watts
Derate above 25°C		← 0.857 →			W/°C
Operating and Storage Junction Temperature Range	T_J, T_{stg}	← -65 to +200 →			°C

ELECTRICAL CHARACTERISTICS (T_C = 25°C unless otherwise noted)

Characteristic		Symbol	Min	Max	Unit
OFF CHARACTERISTICS					
Collector-Emitter Sustaining Voltage (1) (I_C = 200 mAdc, I_B = 0)	2N6226	$V_{CEO(sus)}$	100	–	Vdc
	2N6227		120	–	
	2N6228		140	–	
Collector Cutoff Current (V_{CE} = 50 Vdc, I_B = 0)	2N6226	I_{CEO}	–	1.0	mAdc
(V_{CE} = 60 Vdc, I_B = 0)	2N6227		–	1.0	
(V_{CE} = 70 Vdc, I_B = 0)	2N6228		–	1.0	
Collector Cutoff Current (V_{CE} = Rated V_{CB}, $V_{BE(off)}$ = 1.5 Vdc)		I_{CEX}	–	1.0	mAdc
(V_{CE} = Rated V_{CB}, $V_{BE(off)}$ = 1.5 Vdc, T_C = 150°C)			–	5.0	
Collector Cutoff Current (V_{CB} = Rated V_{CB}, I_E = 0)		I_{CBO}	–	1.0	mAdc
Emitter Cutoff Current (V_{BE} = 7.0 Vdc, I_C = 0)		I_{EBO}	–	1.0	mAdc
ON CHARACTERISTICS (1)					
DC Current Gain (I_C = 3.0 Adc, V_{CE} = 2.0 Vdc)	2N6226	h_{FE}	25	100	–
	2N6227		20	80	
	2N6228		15	60	
(I_C = 6.0 Adc, V_{CE} = 2.0 Vdc	All Types		5.0	–	
Collector-Emitter Saturation Voltage (I_C = 3.0 Adc, I_B = 0.3 Adc)		$V_{CE(sat)}$	–	1.0	Vdc
(I_C = 6.0 Adc, I_B = 1.2 Adc)			–	2.0	
Base-Emitter On Voltage (I_C = 3.0 Adc, V_{CE} = 2.0 Vdc)		$V_{BE(on)}$	–	1.5	Vdc
DYNAMIC CHARACTERISTICS					
Current-Gain – Bandwidth Product (2) (I_C = 0.5 Adc, V_{CE} = 20 Vdc, f_{test} = 0.5 MHz)		f_T	1.0	–	MHz
Output Capacitance (V_{CB} = 10 Vdc, I_E = 0, f = 0.1 MHz)		C_{ob}	–	450	pF
Small-Signal Current Gain (I_C = 2.0 Adc, V_{CE} = 10 Vdc, f = 1.0 kHz)		h_{fe}	15	–	–

*Indicates JEDEC Registered Data.
(1) Pulse Test: Pulse Width ≤300 μs, Duty Cycle ≤2.0%.
(2) $f_T = |h_{fe}| \cdot f_{test}$