

7294621 POWEREX INC

40C 00617 D T-33-13

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DATA SHEETS



Electrical Characteristics

 $T_C = 25^\circ\text{C}$ unless otherwise specified

Parameter	Conditions	Symbol	Limits	Units
			Min.	Max.
2N3232 - 2N3234				
*Collector-cutoff current	$V_{CE} = \text{Max. Rating}^\circ, V_{BE} = -1.5\text{V}$	I_{CEV}	...	1 ma
*Collector-cutoff current	$V_{CE} = \text{Max. Rating}^\circ, V_{BE} = -1.5\text{V}, T_C = 150^\circ\text{C}$	I_{CEV}	...	5 ma
*Emitter-cutoff current	$V_{EB} = 6\text{V}, I_C = 0$	I_{EBO}	...	1 ma
*Collector-emitter sustaining voltage ^①	$I_C = 100\text{ mA}, I_B = 0$	$V_{CEO}(\text{sus})$	...	V
*Dc Forward-current transfer ratio ^②	$I_C = 3\text{A}, V_{CE} = 10\text{V}$	h_{FE}	18	55
*Collector-emitter saturation voltage	$I_C = 3\text{A}, I_B = 0.2\text{A}$	$V_{CE}(\text{sat})$	...	V
*Base-emitter voltage	$I_C = 3\text{A}, V_{CE} = 10\text{V}$	V_{BE}	...	3.5 V
*Small-signal forward current transfer ratio	$I_C = 3\text{A}, V_{CE} = 10\text{V}, f = 1\text{ KHz}$	h_{fe}	10	...
2N3235				
*Collector-cutoff current	$V_{CE} = 90\text{V}, V_{BE} = -1.5\text{V}$	I_{CEV}	...	5 ma
*Collector-cutoff current	$V_{CE} = 45\text{V}, V_{BE} = -1.5\text{V}, T_C = 150^\circ\text{C}$	I_{CEV}	...	5 ma
*Emitter-cutoff current	$V_{EB} = 7\text{V}, I_C = 0$	I_{EBO}	...	5 ma
*Collector-emitter sustaining voltage ^①	$I_C = 100\text{ mA}, I_B = 0$	$V_{CEO}(\text{sus})$	55	V
*Dc Forward-current transfer ratio ^②	$I_C = 4\text{A}, V_{CE} = 4\text{V}$	h_{FE}	20	70
*Collector-emitter saturation voltage	$I_C = 4\text{A}, I_B = 0.4\text{A}$	$V_{CE}(\text{sat})$	...	1.1 V
*Base-emitter voltage	$I_C = 4\text{A}, V_{CE} = 4\text{V}$	V_{BE}	...	1.8 V
*Small-signal forward current transfer ratio	$I_C = 4\text{A}, V_{CE} = 4\text{V}, f = 1\text{ KHz}$	h_{fe}	10	...

* JEDEC registered parameters.

① Pulse test: maximum 300 pulses; duty cycle $\leq 2\%$.② $V_{CEO}(\text{sus})$ and V_{CE} (max) for 2N3232, 50V; for 2N3233, 100V; for 2N3234, 160V.

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Typical Characteristics, 2N3235

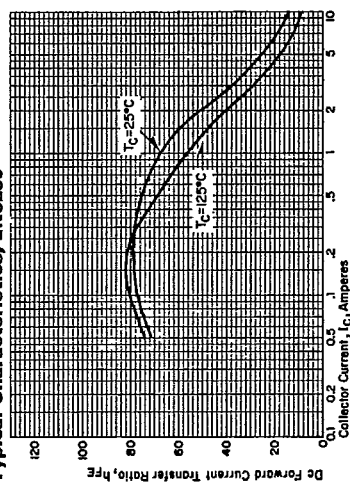


Figure 4. Dc forward current transfer ratio vs. collector current.

Typical Characteristics, 2N3232-2N3234

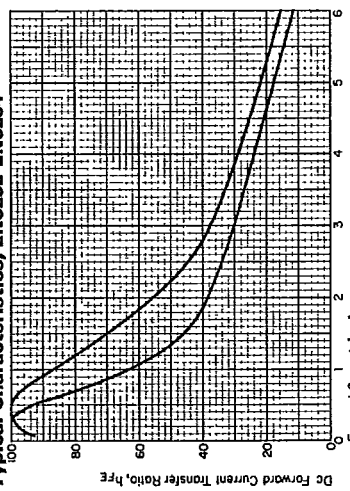


Figure 1. Dc forward current transfer ratio vs. collector current.

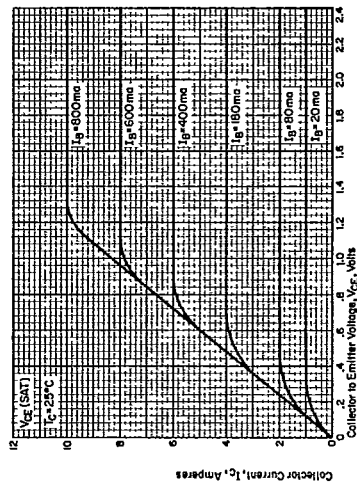


Figure 5. Output characteristics.

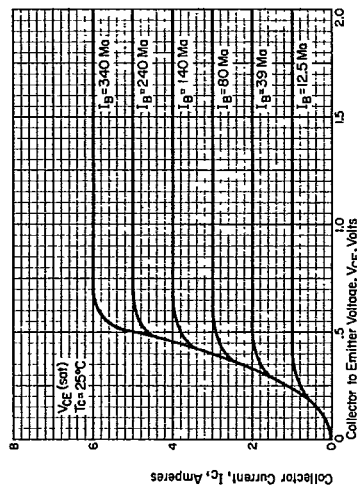


Figure 2. Output characteristics.

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DATA SHEETS

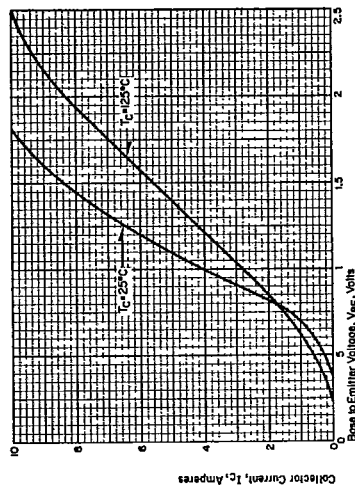


Figure 6. Transconductance characteristics.

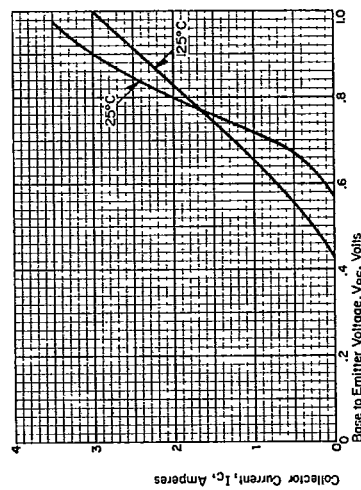


Figure 3. Transconductance characteristics.

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New Information
E, D, C/2116/DB; E, D, C/2117

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