

File Number 888

2N6467, 2N6468

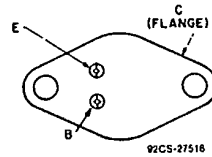
Silicon P-N-P Medium-Power Transistors

General-Purpose Types for Switching Application

Features:

- Low saturation voltages
- Maximum-safe-area-of-operation curves

TERMINAL DESIGNATIONS



JEDEC TO-213AA

The RCA-2N6467 and 2N6468▲ are 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-213AA package.

▲Formerly RCA Dev Nos. TA8710, and TA8709, respectively.

MAXIMUM RATINGS, Absolute-Maximum Values:

	2N6467	2N6468	
*V _{CSO}	-110	-130	V
*V _{CEX(SUS)} V _{BE} = 1.5 V, R _{BE} = 100 Ω	-110	-130	V
V _{CER(SUS)} R _{BE} = 100 Ω	-105	-125	V
V _{CEO(SUS)}	-100	-120	V
*V _{EBO}	-5	-5	V
*I _C	-4	-4	A
*I _B	-2	-2	A
*P _T Up to 25°C	40	40	W
Above 25°C	See Figs. 1, 2 and 3		
*T _J , T _{stg}	-65 to +200		°C
*T _L At distances ≥ 1/32 in. (0.8 mm) from seating plane for 10 s max.	+235		°C

*In accordance with JEDEC registration data format JS-6-RDF-2.

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

CHARACTERISTIC	TEST CONDITIONS				LIMITS				UNITS
	VOLTAGE V dc		CURRENT A dc		2N6467		2N6468		
	V_{CE}	V_{BE}	I_C	I_B	Min.	Max.	Min.	Max.	
I_{CER} $R_{BE} = 100 \Omega$	-95 -100				—	-100	—	-100	μA
I_{CEX} $R_{BE} = 100 \Omega$	-100	1.5			—	-100	—	-100	μA
	-120	1.5			—	—	—	-100	
I_{CEO}	-100 -120	1.5 1.5			—	-2	—	-2	mA
I_{CEO}	-50 -60				—	-1	—	-1	mA
I_{EBO}		5			—	-0.1	—	-0.1	mA
h_{FE}	-4		-1.5 ^a		15	150	15	150	
	-4		-4 ^a		5	—	5	—	
$V_{CEO(SUS)}$			-0.1 ^a		-100 ^b	—	-120 ^b	—	
$V_{CER(SUS)}$ $R_{BE} = 100 \Omega$			-0.1 ^a		-105 ^b	—	-125 ^b	—	V
$V_{CEX(SUS)}$ $R_{BE} = 100 \Omega$		1.5	-0.1 ^a		-110 ^b	—	-130 ^b	—	
V_{BE}	-4		-1.5 ^a		—	-2	—	-2	V
	-4		-4 ^a		—	-3.5	—	-3.5	
$V_{CE(sat)}$			-1.5 ^a	-0.15	—	-1.2	—	-1.2	V
			-4 ^a	-0.8	—	-4 [*]	—	-4 [*]	
$ h_{ie} $ $f = 1 \text{ MHz}$	-4		1		5	—	5	—	
h_{ie} $f = 1 \text{ kHz}$	-4		0.5		25	—	25	—	
$R_{\theta JC}$					—	4.3	—	4.3	°C/W

^aIn accordance with JEDEC registration data format JS-6 RDF-2.

^aPulsed, pulse duration = 300 μs , duty factor = 1.8%

^bCAUTION: Sustaining voltages $V_{CEO(sus)}$, $V_{CER(sus)}$, and $V_{CEX(sus)}$ MUST NOT be measured on a curve tracer.

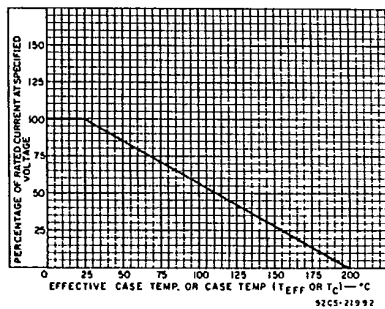


Fig. 1 — Current derating curve for all types.

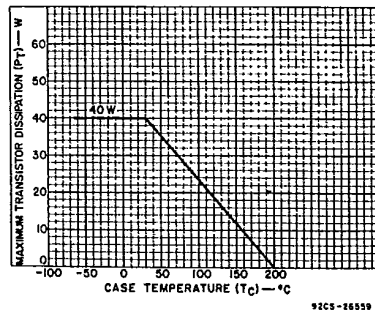


Fig. 2 — Dissipation derating curve for all types.

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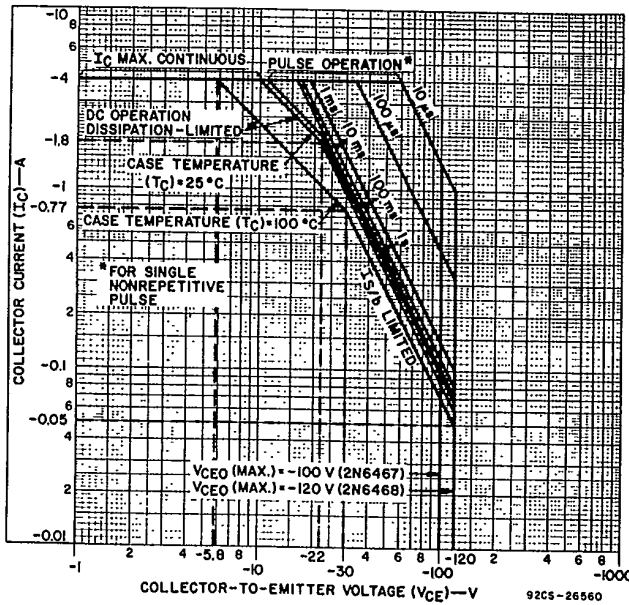


Fig. 3 — Maximum operating areas for 2N6467 and 2N6468.

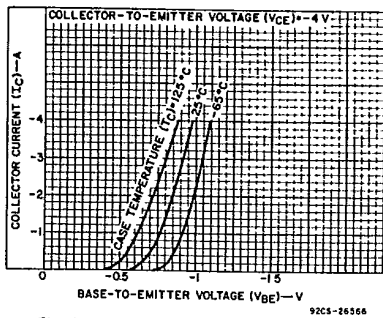


Fig. 4 — Typical transfer characteristics for 2N6467 and 2N6468.

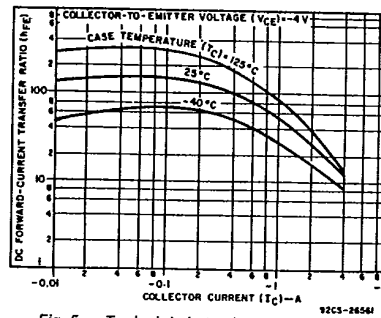


Fig. 5 — Typical dc beta characteristics for 2N6467 and 2N6468.

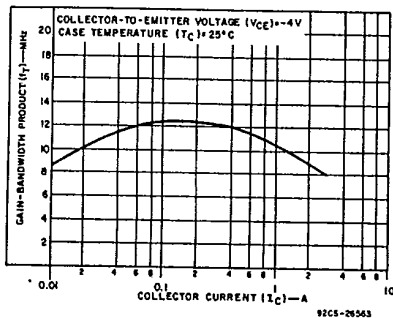


Fig. 6 — Typical gain-bandwidth product by 2N6467 and 2N6468.

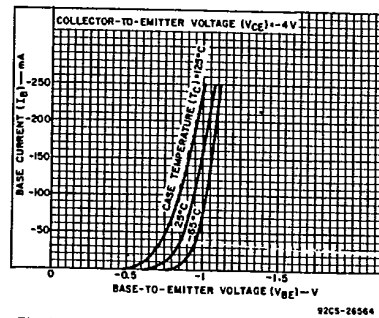


Fig. 7 — Typical input characteristics for 2N6467 and 2N6468.

3875081 G E SOLID STATE
General-Purpose Power Transistors

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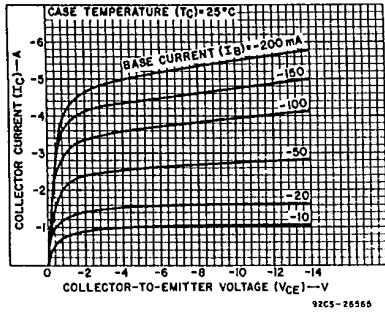


Fig. 8 — Typical output characteristics for 2N6467 and 2N6468.

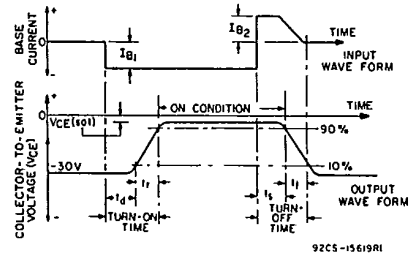


Fig. 9 — Oscilloscope display for measurement of switching times for 2N6467 and 2N6468.

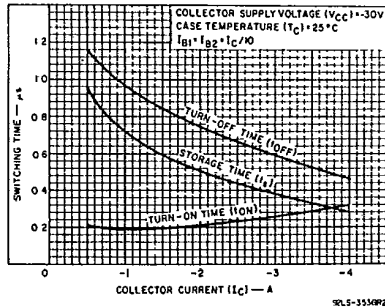


Fig. 10 — Typical saturated switching characteristics for 2N6467 and 2N6468.

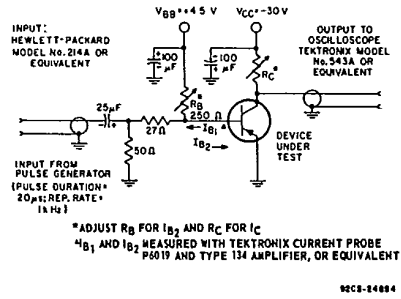


Fig. 11 — Circuit used to measure saturated switching times for 2N6467 and 2N6468.