

File Number 888

2N6467, 2N6468

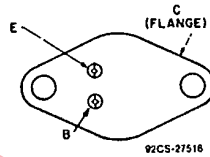
## Silicon P-N-P Medium-Power Transistors

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 <sub>CSO</sub> .....	-110	-130	V
*V <sub>CEX(SUS)</sub> V <sub>BE</sub> = 1.5 V, R <sub>BE</sub> = 100 Ω .....	-110	-130	V
V <sub>CER(SUS)</sub> R <sub>BE</sub> = 100 Ω .....	-105	-125	V
V <sub>CEO(SUS)</sub> .....	-100	-120	V
*V <sub>EBO</sub> .....	-5	-5	V
*I <sub>C</sub> .....	-4	-4	A
*I <sub>B</sub> .....	-2	-2	A
*P <sub>T</sub> Up to 25°C .....	40	40	W
Above 25°C .....	See Figs. 1, 2 and 3		
*T <sub>J</sub> , T <sub>stg</sub> .....	-65 to +200		°C
*T <sub>L</sub> 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	$\mu A$
$I_{CEX}$ $R_{BE} = 100 \Omega$	-100	1.5			—	-100	—	-100	$\mu A$
	-120	1.5			—	—	—	-100	$\mu A$
$I_{CEO}$	-100	1.5			—	-2	—	—	mA
	-120	1.5			—	—	—	-2	mA
$I_{CEO}$	-50 -60				—	-1	—	-1	mA
$I_{EBO}$		5			—	-0.1	—	-0.1	mA
$h_{FE}$	-4		-1.5 <sup>a</sup>		15	150	15	150	
	-4		-4 <sup>a</sup>		5	—	5	—	
$V_{CEO(SUS)}$			-0.1 <sup>a</sup>		-100 <sup>b</sup>	—	-120 <sup>b</sup>	—	V
$V_{CER(SUS)}$ $R_{BE} = 100 \Omega$			-0.1 <sup>a</sup>		-105 <sup>b</sup>	—	-125 <sup>b</sup>	—	V
$V_{CEX(SUS)}$ $R_{BE} = 100 \Omega$		1.5	-0.1 <sup>a</sup>		-110 <sup>b</sup>	—	-130 <sup>b</sup>	—	V
$V_{BE}$	-4		-1.5 <sup>a</sup>		—	-2	—	-2	V
	-4		-4 <sup>a</sup>		—	-3.5	—	-3.5	V
$V_{CE(sat)}$			-1.5 <sup>a</sup>	-0.15	—	-1.2	—	-1.2	V
			-4 <sup>a</sup>	-0.8	—	-4 <sup>*</sup>	—	-4 <sup>*</sup>	V
$ h_{fe} $ $f = 1 \text{ MHz}$	-4		1		5	—	5	—	
$h_{fe}$ $f = 1 \text{ kHz}$	-4		0.5		25	—	25	—	
$R_{\theta JC}$					—	4.3	—	4.3	$^{\circ}C/W$

<sup>a</sup>In accordance with JEDEC registration data format JS-6 RDF-2.

<sup>a</sup>Pulsed, pulse duration = 300  $\mu s$ , duty factor = 1.8%

<sup>b</sup>CAUTION: Sustaining voltages  $V_{CEO(sus)}$ ,  $V_{CER(sus)}$ , and  $V_{CEX(sus)}$  MUST NOT be measured on a curve tracer.

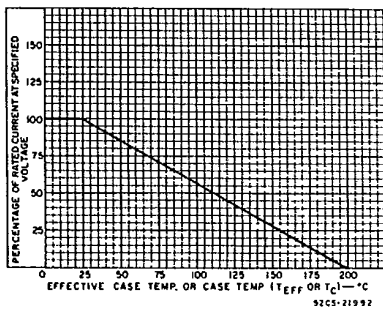


Fig. 1 — Current derating curve for all types.

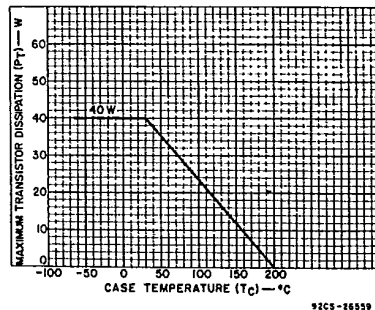


Fig. 2 — Dissipation derating curve for all types.

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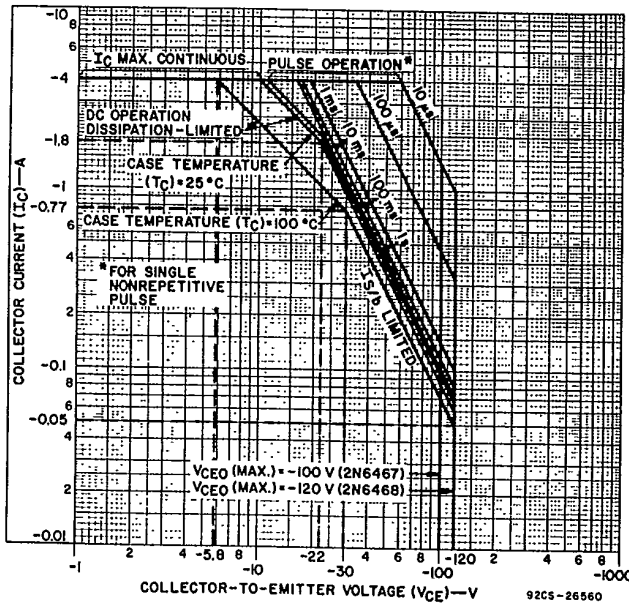


Fig. 3 — Maximum operating areas for 2N6467 and 2N6468.

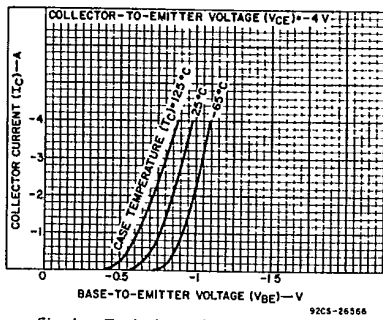


Fig. 4 — Typical transfer characteristics for 2N6467 and 2N6468.

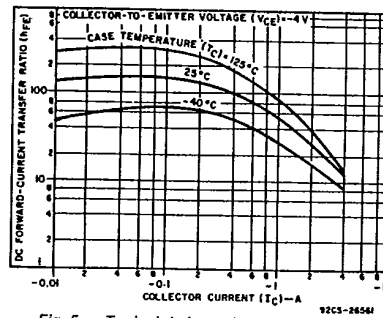


Fig. 5 — Typical dc beta characteristics for 2N6467 and 2N6468.

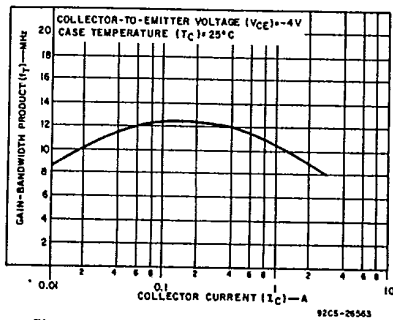


Fig. 6 — Typical gain-bandwidth product by 2N6467 and 2N6468.

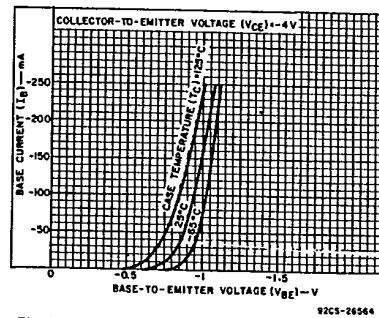


Fig. 7 — Typical input characteristics for 2N6467 and 2N6468.

3875081 G E SOLID STATE  
General-Purpose Power Transistors

01E 17444 DT-33-19

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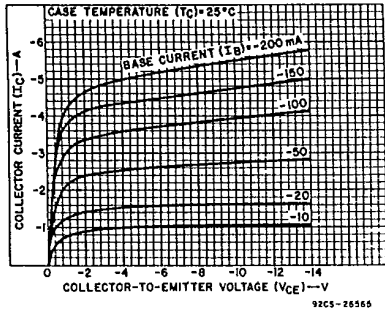


Fig. 8 — Typical output characteristics for 2N6467 and 2N6468.

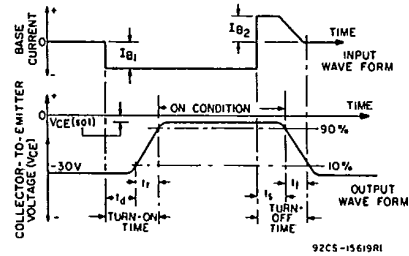


Fig. 9 — Oscilloscope display for measurement of switching times for 2N6467 and 2N6468.

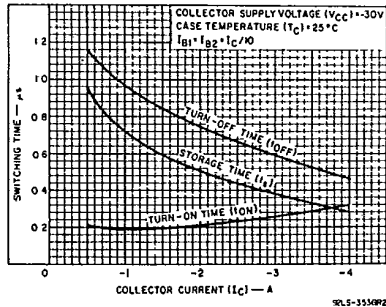


Fig. 10 — Typical saturated switching characteristics for 2N6467 and 2N6468.

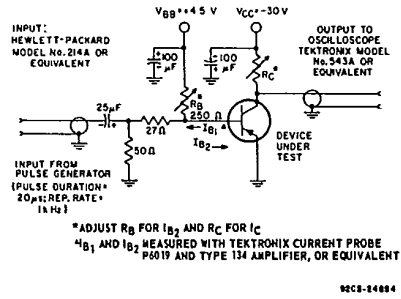


Fig. 11 — Circuit used to measure saturated switching times for 2N6467 and 2N6468.