

### MAXIMUM RATINGS

Rating	Symbol	2N3467	2N3468	Unit
Collector-Emitter Voltage	$V_{CE0}$	40	50	Vdc
Collector-Base Voltage	$V_{CBO}$	40	50	Vdc
Emitter-Base Voltage	$V_{EBO}$	5.0		Vdc
Collector Current — Continuous	$I_C$	1.0		Adc
Total Device Dissipation @ $T_A = 25^\circ\text{C}$ Derate above $25^\circ\text{C}$	$P_D$	1.0	5.71	Watt mW/°C
Total Device Dissipation @ $T_C = 25^\circ\text{C}$ Derate above $25^\circ\text{C}$	$P_D$	5.0	28.6	Watts mW/°C
Operating and Storage Junction Temperature Range	$T_J, T_{stg}$	-65 to +200		°C

### THERMAL CHARACTERISTICS

Characteristic	Symbol	Max	Unit
Thermal Resistance, Junction to Case	$R_{\theta JC}$	35	°C/W
Thermal Resistance, Junction to Ambient	$R_{\theta JA}$	0.175	°C/mW

### ELECTRICAL CHARACTERISTICS ( $T_A = 25^\circ\text{C}$ unless otherwise noted.)

Characteristic	Symbol	Min	Max	Unit
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#### OFF CHARACTERISTICS

Collector-Emitter Breakdown Voltage(1) ( $I_C = 10 \text{ mAdc}, I_B = 0$ )	2N3467 2N3468	$V_{(BR)CEO}$	40 50	— —	Vdc
Collector-Base Breakdown Voltage ( $I_C = 10 \mu\text{Adc}, I_E = 0$ )	2N3467 2N3468	$V_{(BR)CBO}$	40 50	— —	Vdc
Emitter-Base Breakdown Voltage ( $I_E = 10 \mu\text{Adc}, I_C = 0$ )		$V_{(BR)EBO}$	5.0	—	Vdc
Base Cutoff Current ( $V_{CE} = -30 \text{ Vdc}, V_{BE} = 3.0 \text{ Vdc}$ )		$I_{BEV}$	—	120	nAdc
Collector Cutoff Current ( $V_{CE} = -30 \text{ Vdc}, V_{BE} = 3.0 \text{ Vdc}$ )		$I_{CEX}$	—	100	Adc
Collector Cutoff Current ( $V_{CB} = 30 \text{ Vdc}, I_E = 0$ ) ( $V_{CB} = 30 \text{ Vdc}, I_E = 0, T_A = 100^\circ\text{C}$ )		$I_{CBO}$	— —	0.10 15	$\mu\text{Adc}$

#### ON CHARACTERISTICS

DC Current Gain(1) ( $I_C = 150 \text{ mAdc}, V_{CE} = 1.0 \text{ Vdc}$ )	2N3467 2N3468	$h_{FE}$	40 25	— —	—
( $I_C = 500 \text{ mAdc}, V_{CE} = 1.0 \text{ Vdc}$ )	2N3467 2N3468		40 25	120 75	
( $I_C = 1.0 \text{ Adc}, V_{CE} = 5.0 \text{ Vdc}$ )	2N3467 2N3468		40 20	— —	
Collector-Emitter Saturation Voltage(1) ( $I_C = 150 \text{ mAdc}, I_B = 15 \text{ mAdc}$ )	2N3467 2N3468	$V_{CE(sat)}$	— —	0.3 0.36	Vdc
( $I_C = 500 \text{ mAdc}, I_B = 50 \text{ mAdc}$ )	2N3467 2N3468		— —	0.5 0.6	
( $I_C = 1.0 \text{ Adc}, I_B = 100 \text{ mAdc}$ )	2N3467 2N3468		— —	1.0 1.2	
Base-Emitter Saturation Voltage(1) ( $I_C = 150 \text{ mAdc}, I_B = 15 \text{ mAdc}$ ) ( $I_C = 500 \text{ mAdc}, I_B = 50 \text{ mAdc}$ ) ( $I_C = 1.0 \text{ Adc}, I_B = 100 \text{ mAdc}$ )		$V_{BE(sat)}$	— 0.8 —	1.0 1.2 1.6	Vdc

# 2N3467 2N3468

JAN, JTX, JTXV AVAILABLE  
CASE 079-02, STYLE 1  
TO-39 (TO-205AD)

SWITCHING TRANSISTOR

PNP SILICON

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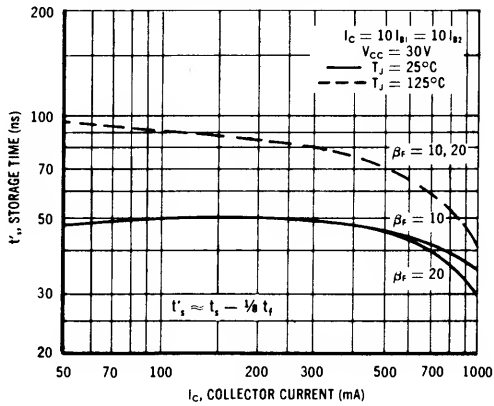
**2N3467, 2N3468**

**ELECTRICAL CHARACTERISTICS** (continued) ( $T_A = 25^\circ\text{C}$  unless otherwise noted.)

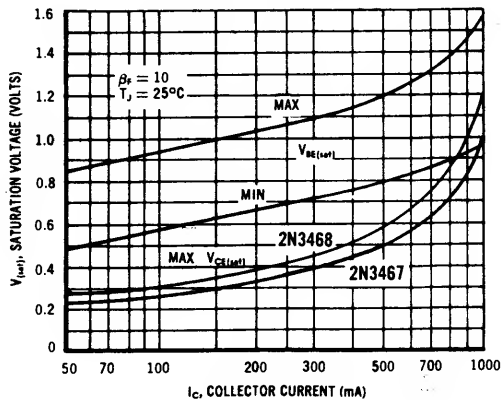
Characteristic	Symbol	Min	Max	Unit
<b>SMALL-SIGNAL CHARACTERISTICS</b>				
Current-Gain — Bandwidth Product ( $I_C = 50\text{ mAdc}$ , $V_{CE} = 10\text{ Vdc}$ , $f = 100\text{ MHz}$ )	$f_T$	175 150	—	MHz
Output Capacitance ( $V_{CB} = 10\text{ Vdc}$ , $I_E = 0$ , $f = 100\text{ kHz}$ )	$C_{obo}$	—	25	pF
Input Capacitance ( $V_{EB} = 0.5\text{ Vdc}$ , $I_C = 0$ , $f = 100\text{ kHz}$ )	$C_{ibo}$	—	100	pF
<b>SWITCHING CHARACTERISTICS</b>				
Delay Time ( $I_C = 500\text{ mA}$ , $I_{B1} = 50\text{ mA}$ , $V_{BE} = 2.0\text{ V}$ , $V_{CC} = 30\text{ V}$ )	$t_d$	—	10	ns
Rise Time	$t_r$	—	30	ns
Storage Time ( $I_C = 500\text{ mA}$ , $I_{B1} = I_{B2} = 50\text{ mA}$ , $V_{CC} = 30\text{ V}$ )	$t_s$	—	60	ns
Fall Time	$t_f$	—	30	ns
Total Control Charge ( $I_C = 500\text{ mA}$ , $I_B = 50\text{ mA}$ , $V_{CC} = 30\text{ V}$ )	$Q_T$	—	6.0	nC

(1) Pulse Test:  $PW \leq 300\ \mu\text{s}$ , Duty Cycle  $\leq 2.0\%$ .

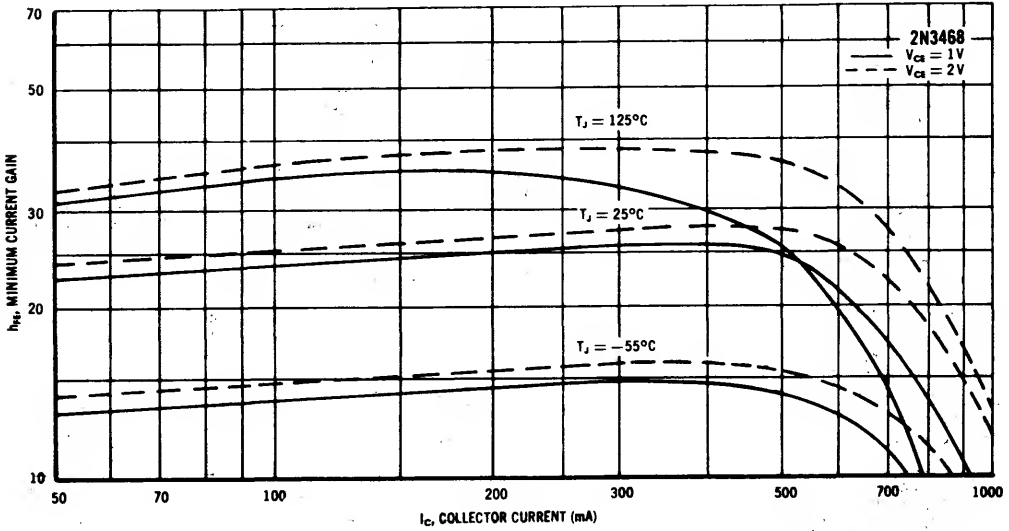
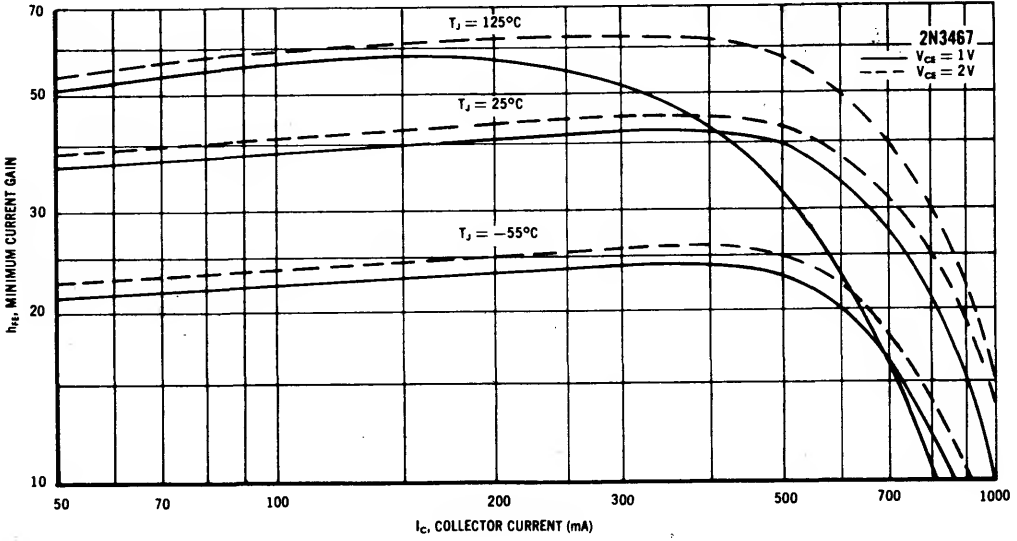
**STORAGE TIME VARIATION WITH TEMPERATURE**



**LIMITS OF SATURATION VOLTAGE**



MINIMUM CURRENT GAIN CHARACTERISTICS



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