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**SEMICONDUCTOR
TECHNICAL DATA**

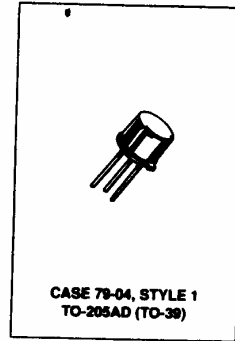
**2N3467
2N3468**

**PNP Silicon
Small-Signal Transistors**

... designed for general-purpose switching applications.

CRYSTALONCS
2805 Veterans Highway
Suite 14
Ronkonkoma, N.Y. 11779

MAXIMUM RATINGS				
Rating	Symbol	2N3467	2N3468	Unit
Collector-Emitter Voltage	V _{CEO}	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
Power Dissipation	P _T			
@ T _A = 25°C		1.0		Watts
Derate above 25°C		5.71		mW/°C
@ T _C = 25°C		5.0		Watts
Derate above 25°C		28.6		W/°C
Operating Junction and Storage Temperature Range	T _J , T _{stg}	-65 to 200		°C



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ELECTRICAL CHARACTERISTICS (T _A = 25°C unless otherwise noted.)					
Characteristic		Symbol	Min	Max	Unit
OFF CHARACTERISTICS					
Collector-Emitter Breakdown Voltage ⁽¹⁾ (I _C = 10 mA _{dc} , I _B = 0)	2N3467 2N3468	V _{(BR)CEO}	40 50	—	Vdc
Collector-Base Breakdown Voltage (I _C = 10 μA _{dc} , I _B = 0)	2N3467 2N3468	V _{(BR)CBO}	40 50	—	Vdc
Emitter-Base Breakdown Voltage (I _C = 10 μA _{dc} , I _B = 0)		V _{(BR)EBO}	5.0	—	Vdc
Collector Cutoff Current (V _{CE} = 30 Vdc, V _{EB} = 3.0 Vdc)		I _{CEX}	—	0.1	μA _{dc}
Collector Cutoff Current (V _{CB} = 30 Vdc, T _A = 150°C)		I _{CBO}	—	0.1 50	μA _{dc}

⁽¹⁾ Pulsed. Pulse Width 250 to 350 μs. Duty Cycle 1.0 to 2.0%.

(continued)

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

Characteristic	Symbol	Min	Max	Unit
ON CHARACTERISTICS(1)				
DC Current Gain ($I_C = 150\text{ mAdc}$, $V_{CE} = 1.0\text{ Vdc}$) ($I_C = 500\text{ mAdc}$, $V_{CE} = 1.0\text{ Vdc}$) ($I_C = 1000\text{ mAdc}$, $V_{CE} = 5.0\text{ Vdc}$) ($I_C = 150\text{ mAdc}$, $V_{CE} = 1.0\text{ Vdc}$, $T_A = -55^\circ\text{C}$)	2N3467	hFE 40 40 40 16	— 120 — —	—
	2N3468	25 25 25 10	— — 75 —	—
Collector-Emitter Saturation Voltage ($I_C = 150\text{ mAdc}$, $I_B = 15\text{ mAdc}$) ($I_C = 500\text{ mAdc}$, $I_B = 50\text{ mAdc}$) ($I_C = 1000\text{ mAdc}$, $I_B = 100\text{ mAdc}$)	$V_{CE(sat)}$	— — —	0.35 0.6 1.2	Vdc
Base-Emitter Saturation Voltage ($I_C = 150\text{ mAdc}$, $I_B = 15\text{ mAdc}$) ($I_C = 500\text{ mAdc}$, $I_B = 50\text{ mAdc}$) ($I_C = 1000\text{ mAdc}$, $I_B = 100\text{ mAdc}$)	$V_{BE(sat)}$	— 0.8 —	1.0 1.2 1.6	Vdc
SMALL-SIGNAL CHARACTERISTICS				
Output Capacitance ($V_{CB} = 10\text{ Vdc}$, $f = 0.1$ to 1.0 MHz)	C_{obo}	—	25	pF
Input Capacitance ($V_{EB} = 0.5\text{ Vdc}$, $f = 0.1$ to 1.0 MHz)	C_{ibo}	—	100	pF
Current-Gain — Bandwidth Product ($I_C = 50\text{ mAdc}$, $V_{CE} = 10\text{ Vdc}$, $f = 100\text{ MHz}$)	f_T	175 150	500 500	MHz
SWITCHING CHARACTERISTICS (See Figure 37)				
Delay Time	t_d	—	10	ns
Rise Time	t_r	—	30	ns
Storage Time	t_s	—	60	ns
Fall Time	t_f	—	30	ns

ASSURANCE TESTING (Pre/Post Burn-In)
 Burn-In Conditions: $T_A = 25 \pm 3^\circ\text{C}$, $V_{CB} = 30\text{ Vdc}$ 2N3467, 40 Vdc 2N3468
 $P_T = 1.0\text{ W}$

Characteristics Tested	Symbol	Initial and End Point Limits		Unit
		Min	Max	
Collector Cutoff Current ($V_{CB} = 30\text{ Vdc}$)	I_{CEO}	—	100	nAdc
DC Current Gain(1) ($I_C = 500\text{ mAdc}$, $V_{CE} = 1.0\text{ Vdc}$)	hFE	40	120	—
		25	75	

Delta from Pre-Burn-In Measured Values		Min	Max	Unit
Delta Collector Cutoff Current	ΔI_{CEO}	—	+100 or +50 whichever is greater	% of Initial Value nAdc
Delta DC Current Gain(1)	ΔhFE	—	+25	% of Initial Value

(1) Pulsed. Pulse Width 250 to 350 μs . Duty Cycle 1.0 to 2.0%.