

PNP SILICON SWITCHING TRANSISTOR

Qualified per MIL-PRF-19500/348

Devices

2N3467
2N3467L

2N3468
2N3468L

Qualified Level

JAN
JANTX
JANTXV

MAXIMUM RATINGS

Ratings	Symbol	2N3467 2N3467L	2N3468 2N3468L	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	I_C	1.0		Adc
Total Power Dissipation @ $T_A = +25^{\circ}\text{C}^{(1)}$ @ $T_C = +25^{\circ}\text{C}^{(2)}$	P_T	1.0 5.0		W W
Operating & Storage Junction Temperature Range	T_{op}, T_{stg}	-55 to +175		$^{\circ}\text{C}$

1) Derate linearly 5.71 mW/ $^{\circ}\text{C}$ for $T_A > +25^{\circ}\text{C}$

2) Derate linearly 28.6 mW/ $^{\circ}\text{C}$ for $T_C > +25^{\circ}\text{C}$



TO-39* (TO-205AD)
2N3467, 2N3468



TO-5*
2N3467L, 2N3468L

*See appendix A for package outline

ELECTRICAL CHARACTERISTICS

Characteristics	Symbol	Min.	Max.	Unit
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OFF CHARACTERISTICS

Collector-Emitter Breakdown Current $I_C = 10 \text{ mAdc}$	2N3467, L 2N3468, L	$V_{(BR)CBO}$	40 50	Vdc
Emitter-Base Breakdown Current $I_E = 10 \mu\text{Adc}$		$V_{(BR)EBO}$	5.0	Vdc
Collector-Emitter Breakdown Current $I_C = 10 \text{ mAdc}$	2N3467, L 2N3468, L	$V_{(BR)CEO}$	40 50	Vdc
Collector-Base Cutoff Current $V_{CB} = 30 \text{ Vdc}$		I_{CBO}	100	ηAdc
Collector-Emitter Cutoff Current $V_{EB} = 3.0 \text{ Vdc}, V_{CE} = 30$		I_{CEX}	100	nAdc

ELECTRICAL CHARACTERISTICS (con't)

Characteristics	Symbol	Min.	Max.	Unit
ON CHARACTERISTICS (3)				
Forward-Current Transfer Ratio $I_C = 150 \text{ mAdc}, V_{CE} = 1.0 \text{ Vdc}$ 2N3467, L 2N3468, L	h_{FE}	40		
		25		
$I_C = 500 \text{ mAdc}, V_{CE} = 1.0 \text{ Vdc}$ 2N3467, L 2N3468, L		40	120	
		25	75	
$I_C = 1.0 \text{ Adc}, V_{CE} = 5.0 \text{ Vdc}$ 2N3467, L 2N3468, L		40		
		25		
Collector-Emitter Saturation Voltage $I_C = 150 \text{ mAdc}, I_B = 15 \text{ mAdc}$ $I_C = 500 \text{ mAdc}, I_B = 50 \text{ mAdc}$ $I_C = 1.0 \text{ Adc}, I_B = 100 \text{ mAdc}$	$V_{CE(sat)}$		0.35 0.6 1.2	Vdc
Base-Emitter Saturation Voltage $I_C = 150 \text{ mAdc}, I_B = 15 \text{ mAdc}$ $I_C = 500 \text{ mAdc}, I_B = 50 \text{ mAdc}$ $I_C = 1.0 \text{ Adc}, I_B = 100 \text{ mAdc}$	$V_{BE(sat)}$	0.8	1.0 1.2 1.6	Vdc

DYNAMIC CHARACTERISTICS

Output Capacitance $V_{CB} = 10 \text{ Vdc}, I_E = 0, 100 \text{ kHz} \leq f \leq 1.0 \text{ MHz}$	C_{obo}		25	pF
Extrapolated Unity Gain Frequency $I_C = 50 \text{ mAdc}, V_{CE} = 10 \text{ Vdc}, f = 100 \text{ NHz}$ 2N3467, L 2N3468, L	f_t	175 150	500 500	MHz
Input Capacitance $V_{EB} = 0.5 \text{ Vdc}, I_C = 0, 100 \text{ kHz} \leq f \leq 1.0 \text{ MHz}$	C_{ibo}		100	pF

SWITCHING CHARACTERISTICS

Delay Time	$I_C = 500 \text{ mAdc}, I_{B1} = 50 \text{ mAdc}, V_{EB} = 2$	t_d	10	ns
Rise Time	$I_C = 500 \text{ mAdc}, I_{B1} = 50 \text{ mAdc}, V_{EB} = 2$	t_r	30	ns
Storage Time	$I_C = 500 \text{ mAdc}, I_{B1} = I_{B2} = 50 \text{ mAdc}$	t_s	60	ns
Fall Time	$I_C = 100 \text{ mAdc}, I_{B1} = I_{B2} = 50 \text{ mAdc}$	t_f	30	ns