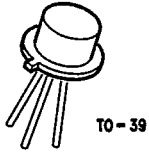


2N3467/TN3467/MPQ3467



T-37-15

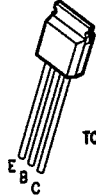
2N3467



TO-39

TL/G/10100-11

TN3467

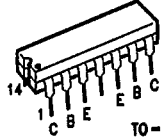


TO-237

E
B
C

TL/G/10100-8

MPQ3467



TO-118

TL/G/10100-7

PNP Switching Transistor

Electrical Characteristics $T_A = 25^\circ\text{C}$ unless otherwise noted

Symbol	Parameter	Min	Max	Units
OFF CHARACTERISTICS				
$V_{(BR)CEO}$	Collector-Emitter Breakdown Voltage, (Note 1) ($I_C = 10 \text{ mAdc}, I_B = 0$)	40		Vdc
$V_{(BR)CBO}$	Collector-Base Breakdown Voltage ($I_C = 10 \text{ }\mu\text{Adc}, I_E = 0$)	40		Vdc
$V_{(BR)EBO}$	Emitter-Base Breakdown Voltage ($I_E = 10 \text{ }\mu\text{Adc}, I_C = 0$)	5.0		Vdc
I_{BEV}	Base Cutoff Current ($V_{CE} = -30 \text{ Vdc}, V_{BE} = 3.0 \text{ Vdc}$)		120	nAdc
I_{CEX}	Collector Cutoff Current ($V_{CE} = -30 \text{ Vdc}, V_{BE} = 3.0 \text{ Vdc}$)		100	nAdc
I_{CBO}	Collector Cutoff Current ($V_{CB} = 30 \text{ Vdc}, I_E = 0$) ($V_{CB} = 30 \text{ Vdc}, I_E = 0, T_A = 100^\circ\text{C}$)		0.010 15	μAdc
ON CHARACTERISTICS				
h_{FE}	DC Current Gain, (Note 1) ($I_C = 150 \text{ mAdc}, V_{CE} = 1.0 \text{ Vdc}$) ($I_C = 500 \text{ mAdc}, V_{CE} = 1.0 \text{ Vdc}$) ($I_C = 1.0 \text{ Adc}, V_{CE} = 5.0 \text{ Vdc}$)	40 40 40	120	
$V_{CE(sat)}$	Collector-Emitter Saturation Voltage, (Note 1) ($I_C = 150 \text{ mAdc}, I_B = 15 \text{ mAdc}$) ($I_C = 500 \text{ mAdc}, I_B = 50 \text{ mAdc}$) ($I_C = 1.0 \text{ Adc}, I_B = 100 \text{ mAdc}$)		0.3 0.5 1.0	Vdc
$V_{BE(sat)}$	Base-Emitter Saturation Voltage, (Note 1) ($I_C = 150 \text{ mAdc}, I_B = 15 \text{ mAdc}$) ($I_C = 500 \text{ mAdc}, I_B = 50 \text{ mAdc}$) ($I_C = 1.0 \text{ Adc}, I_B = 100 \text{ mAdc}$)	0.8	1.0 1.2 1.6	Vdc

PNP Switching Transistor (Continued)

T-37-15

Electrical Characteristics $T_A = 25^\circ\text{C}$ unless otherwise noted (Continued)

Symbol	Parameter	Min	Max	Units
SMALL-SIGNAL CHARACTERISTICS				
f_T	Current Gain—Bandwidth Product ($I_C = 50\text{ mA dc}$, $V_{CE} = 10\text{ V dc}$, $f = 100\text{ MHz}$)	175		MHz
C_{obo}	Output Capacitance ($V_{CB} = 10\text{ V dc}$, $I_E = 0$, $f = 100\text{ kHz}$)		25	pF
C_{ibo}	Input Capacitance ($V_{EB} = 0.5\text{ V dc}$, $I_C = 0$, $f = 100\text{ kHz}$)		100	pF
SWITCHING CHARACTERISTICS				
t_d	Delay Time	($I_C = 500\text{ mA}$, $I_{B1} = 50\text{ mA}$, $V_{BE} = 2.0\text{ V}$, $V_{CC} = 30\text{ V}$)	10	ns
t_r	Rise Time		30	ns
t_s	Storage Time	($I_C = 500\text{ mA}$, $I_{B1} = I_{B2} = 50\text{ mA}$, $V_{CC} = 30\text{ V}$)	60	ns
t_f	Fall Time		30	ns

Note 1: Pulse Test: Pulse Width $\leq 300\ \mu\text{s}$, Duty Cycle $\leq 2.0\%$.

Note 2: For characteristics curves, see Process 70.

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