

MHQ3467

CASE 632-02, STYLE 1
TO-116

QUAD
MEMORY DRIVER TRANSISTOR

PNP SILICON

MAXIMUM RATINGS

Rating	Symbol	Value		Unit
Collector-Emitter Voltage	V_{CEO}	40		Vdc
Collector-Base Voltage	V_{CBO}	40		Vdc
Emitter-Base Voltage	V_{EBO}	5.0		Vdc
Collector Current — Continuous	I_C	1.0		Adc
		Each Transistor	Total Device	
Total Device Dissipation @ $T_A = 25^\circ\text{C}$ Derate above 25°C	P_D	0.9 5.14	2.7 15.4	Watts mW/ $^\circ\text{C}$
Total Device Dissipation @ $T_C = 25^\circ\text{C}$ Derate above 25°C	P_D	1.8 10.3	6.3 36	Watts mW/ $^\circ\text{C}$
Operating and Storage Junction Temperature Range	T_J, T_{stg}	- 55 to + 200		$^\circ\text{C}$

Refer to MD3467 for graphs.

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

Characteristic	Symbol	Min	Typ	Max	Unit
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OFF CHARACTERISTICS

Collector-Emitter Breakdown Voltage(1) ($I_C = 10 \text{ mAdc}, I_B = 0$)	$V_{(BR)CEO}$	40	—	—	Vdc
Collector-Base Breakdown Voltage ($I_C = 10 \mu\text{Adc}, I_E = 0$)	$V_{(BR)CBO}$	40	—	—	Vdc
Emitter-Base Breakdown Voltage ($I_E = 10 \mu\text{Adc}, I_C = 0$)	$V_{(BR)EBO}$	5.0	—	—	Vdc
Collector Cutoff Current ($V_{CB} = 30 \text{ Vdc}, I_E = 0$)	I_{CBO}	—	—	200	nAdc
Emitter Cutoff Current ($V_{BE} = 3.0 \text{ Vdc}, I_C = 0$)	I_{EBO}	—	—	200	nAdc

ON CHARACTERISTICS

DC Current Gain(1) ($I_C = 500 \text{ mAdc}, V_{CE} = 1.0 \text{ Vdc}$)	h_{FE}	20	—	—	—
Collector-Emitter Saturation Voltage(1) ($I_C = 500 \text{ mAdc}, I_B = 50 \text{ mAdc}$)	$V_{CE(sat)}$	—	0.23	0.5	Vdc
Base-Emitter Saturation Voltage(1) ($I_C = 500 \text{ mAdc}, I_B = 50 \text{ mAdc}$)	$V_{BE(sat)}$	—	0.9	1.2	Vdc

SMALL-SIGNAL CHARACTERISTICS

Current-Gain — Bandwidth Product(1) ($I_C = 50 \text{ mAdc}, V_{CE} = 10 \text{ Vdc}, f = 100 \text{ MHz}$)	f_T	125	190	—	MHz
Output Capacitance ($V_{CB} = 10 \text{ Vdc}, I_E = 0, f = 100 \text{ kHz}$)	C_{obo}	—	10	25	pF
Input Capacitance ($V_{BE} = 0.5 \text{ Vdc}, I_C = 0, f = 100 \text{ kHz}$)	C_{ibo}	—	55	80	pF

SWITCHING CHARACTERISTICS

Turn-On Time ($I_C = 500 \text{ mAdc}, I_{B1} = 50 \text{ mAdc}$)	t_{on}	—	—	40	ns
Turn-Off Time ($I_C = 500 \text{ mAdc}, I_{B1} = I_{B2} = 50 \text{ mAdc}$)	t_{off}	—	—	90	ns

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