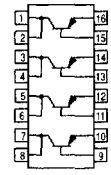
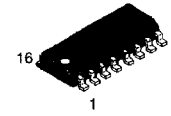
Quad Memory Driver Transistor

PNP Silicon



MMPQ3467

Motorola Preferred Device



CASE 751B–05, STYLE 4
SO–16

MAXIMUM RATINGS

Rating	Symbol	Value		Unit
Collector–Emitter Voltage	V_{CEO}	–40		Vdc
Collector–Base Voltage	V_{CB}	–40		Vdc
Emitter–Base Voltage	V_{EB}	–5.0		Vdc
Collector Current — Continuous	I_C	–1.0		Adc
		Each Transistor	**Four Transistors Equal Power**	
Power Dissipation @ T_A = 25°C Derate above 25°C	P_D	0.52 4.2	1.2 9.6	Watts mW/°C
Power Dissipation @ T_C = 25°C Derate above 25°C	P_D	1.0 8.0	2.5 20	Watts mW/°C
Operating and Storage Junction Temperature Range	T_J, T_{stg}	–55 to +150		°C

ELECTRICAL CHARACTERISTICS (T_A = 25°C unless otherwise noted)

Characteristic	Symbol	Min	Typ	Max	Unit
OFF CHARACTERISTICS					
Collector–Emitter Breakdown Voltage(1) (I_C = –10 mAdc, I_B = 0)	$V_{(BR)CEO}$	–40	—	—	Vdc
Collector–Base Breakdown Voltage (I_C = –10 μAdc, I_E = 0)	$V_{(BR)CBO}$	–40	—	—	Vdc
Emitter–Base Breakdown Voltage (I_E = –10 μAdc, I_C = 0)	$V_{(BR)EBO}$	–5.0	—	—	Vdc
Collector Cutoff Current (V_{CB} = –30 Vdc, I_E = 0)	I_{CBO}	—	—	–200	nAdc
Emitter Cutoff Current (V_{EB} = –3.0 Vdc, I_C = 0)	I_{EBO}	—	—	–200	nAdc

1. Pulse Test: Pulse Width ≤ 300 μs; Duty Cycle ≤ 2.0%.

Preferred devices are Motorola recommended choices for future use and best overall value.

REV 2

ELECTRICAL CHARACTERISTICS (T_A = 25°C unless otherwise noted) (Continued)

Characteristic	Symbol	Min	Typ	Max	Unit
ON CHARACTERISTICS					
DC Current Gain[1] (I_C = –500 mAdc, V_{CE} = –1.0 Vdc)	h_{FE}	20	—	—	—
Collector–Emitter Saturation Voltage[1] (I_C = –500 mAdc, I_B = –50 mAdc)	$V_{CE(sat)}$	—	–0.23	–0.5	Vdc
Base–Emitter Saturation Voltage[1] (I_C = –500 mAdc, I_B = –50 mAdc)	$V_{BE(sat)}$	—	–0.9	–1.2	Vdc
DYNAMIC CHARACTERISTICS					
Current–Gain — Bandwidth Product (I_C = –50 mAdc, V_{CE} = –10 Vdc, f = 100 MHz)	f_T	—	190	—	MHz
Output Capacitance (V_{CB} = –10 Vdc, I_E = 0, f = 1.0 MHz)	C_{ob}	—	10	—	pF
Input Capacitance (V_{EB} = –0.5 Vdc, I_C = 0, f = 1.0 MHz)	C_{ib}	—	55	—	pF
SWITCHING CHARACTERISTICS					
Turn–On Time (I_C = –500 mAdc, I_{B1} = –50 mAdc)	t_{on}	—	20	—	ns
Turn–Off Time (I_C = –500 mAdc, I_{B1} = I_{B2} = –50 mAdc)	t_{off}	—	60	—	ns

1. Pulse Test: Pulse Width ≤ 300 μs; Duty Cycle ≤ 2.0%.