

MPS6516 thru' MPS6519 are PNP silicon planar epitaxial transistors designed for general purpose amplifier applications and for complementary circuitry.

CASE TO-92A



ABSOLUTE MAXIMUM RATINGS

Collector-Emitter Voltage
Collector-Base Voltage
Emitter-Base Voltage
Collector Current
Total Power Dissipation @ $T_A=25^\circ\text{C}$
@ $T_C=25^\circ\text{C}$
Operating Junction & Storage Temperature

	MPS6516/7/8	MPS6519
V_{CE0}	40V	25V
V_{CB0}	40V	25V
V_{EB0}	4V	4V
I_C	100mA	100mA
P_{tot}	350mW	350mW
	1W	1W
T_j, T_{stg}	-55 to +150°C	

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

PARAMETER	SYMBOL	MIN	TYP	MAX	UNIT	TEST CONDITIONS
Collector-Emitter Breakdown Voltage MPS6516/7/8 MPS6519	BV_{CE0}	40 25			V V	$I_C=0.5\text{mA}$ $I_B=0$
Emitter-Base Breakdown Voltage	BV_{EB0}	4			V	$I_E=10\mu\text{A}$ $I_C=0$
Collector Cutoff Current MPS6516/7/8 MPS6519	IC_{B0}			50 50	nA nA	$V_{CB}=30\text{V}$ $I_E=0$ $V_{CB}=20\text{V}$ $I_E=0$
Collector Cutoff Current MPS6516/7/8 MPS6519	IC_{B0}			1 1	μA μA	$T_A=60^\circ\text{C}$ $V_{CB}=30\text{V}$ $I_E=0$ $V_{CB}=20\text{V}$ $I_E=0$
Collector-Emitter Saturation Voltage	$V_{CE(SAT)}$			0.5	V	$I_C=50\text{mA}$ $I_B=5\text{mA}$
D.C. Current Gain MPS6516 MPS6517 MPS6518 MPS6519	H_{FE}	50 90 150 250		100 180 300 500		$I_C=2\text{mA}$ $V_{CE}=10\text{V}$
D.C. Current Gain MPS6516 MPS6517 MPS6518 MPS6519	H_{FE}^*	30 60 90 150				$I_C=100\text{mA}$ $V_{CE}=10\text{V}$
Current Gain-Bandwidth Product	f_T		150 250		MHz MHz	$I_C=2\text{mA}$ $V_{CE}=10\text{V}$ $I_C=10\text{mA}$ $V_{CE}=10\text{V}$

5.80 * Pulse Test : Pulse Width=0.3ms, Duty Cycle=1%



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

PARAMETER	SYMBOL	MIN	TYP	MAX	UNIT	TEST CONDITIONS
Output Capacitance	Cob			4	pF	$V_{CB}=10\text{V}$ $I_E=0$ $f=100\text{kHz}$
Noise Figure	NF		2		dB	$I_C=10\mu\text{A}$ $V_{CE}=5\text{V}$ $R_S=10\text{K}\Omega$ Power Bandwidth =15.7KHz, 3dB points @ 10Hz & 10kHz

11/20/27/11
1/2/98/5