

MPS6512 thru' MPS6515 are NPN silicon planar epitaxial transistors designed for general purpose amplifier applications and for complementary circuitry.

CASE TO-92A



ABSOLUTE MAXIMUM RATINGS

		MPS6512/3	MPS6514/5
Collector-Emitter Voltage	V _{CEO}	30V	25V
Collector-Base Voltage	V _{CB0}	40V	40V
Emitter-Base Voltage	V _{EB0}	4V	4V
Collector Current	I _C	100mA	100mA
Total Power Dissipation @ T _A =25°C	P _{tot}	350mW	350mW
@ T _C =25°C		1W	1W
Operating Junction & Storage Temperature	T _j , T _{stg}	-55 to +150°C	

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

PARAMETER	SYMBOL	MIN	TYP	MAX	UNIT	TEST CONDITIONS
Collector-Emitter Breakdown Voltage	BV _{CEO}	30			V	I _C =0.5mA I _B =0
		25			V	
Emitter-Base Breakdown Voltage	BV _{EB0}	4			V	I _E =10μA I _C =0
Collector Cutoff Current	I _{CB0}			50	nA	V _{CB} =30V I _E =0
				1	μA	T _A =60°C V _{CB} =30V I _E =0
Collector-Emitter Saturation Voltage	V _{CE(SAT)}			0.5	V	I _C =50mA I _B =5mA
D.C. Current Gain	HFE	50		100		I _C =2mA V _{CE} =10V
		90		180		
		150		300		
		250		500		
D.C. Current Gain	HFE *	30				I _C =100mA V _{CE} =10V
		60				
		90				
		150				
Current Gain-Bandwidth Product	f _T		150		MHz	I _C =2mA V _{CE} =10V
			250		MHz	I _C =10mA V _{CE} =10V
Output Capacitance	C _{ob}			3.5	pF	V _{CB} =10V f=100kHz

5.80



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

PARAMETER	SYMBOL	MIN	TYP	MAX	UNIT	TEST CONDITIONS
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

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

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