



MPS-A55 · MPS-A56

COMPLEMENTARY SILICON AF MEDIUM POWER TRANSISTORS

MICRO ELECTRONICS

THE MPS-A05, MPS-A06, MPS-A55, MPS-A56 ARE SILICON PLANAR EPITAXIAL TRANSISTORS FOR AF DRIVERS AND OUTPUTS, AS WELL AS FOR UNIVERSAL APPLICATIONS. THE MPS-A05, MPS-A06 ARE NPN AND ARE COMPLEMENTARY TO THE PNP MPS-A55 AND MPS-A56 RESPECTIVELY.

CASE TO-92A



ABSOLUTE MAXIMUM RATINGS

For p-n-p devices, voltage and current values are negative.

MPS-A05(NPN)	MPS-A06(NPN)
MPS-A55(PNP)	MPS-A56(PNP)

Collector-Base Voltage	V _{CBO}	60V	80V
Collector-Emitter Voltage	V _{CEO}	60V	80V
Emitter-Base Voltage	V _{EBO}	4V	
Collector Current	I _C	0.5A	
Collector Peak Current (t ≤ 10ms)	I _{CM}	1.5A	
Total Power Dissipation (T _C ≤ 25°C)	P _{tot}	1.5W	
(T _A ≤ 25°C)		625mW	
Operating Junction & Storage Temperature	T _j , T _{stg}	-55 to 150°C	

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

PARAMETER	SYMBOL	MPS-A05(NPN)		MPS-A06(NPN)		UNIT	TEST CONDITIONS
		MIN	MAX	MIN	MAX		
Collector-Emitter Breakdown Voltage	LV _{CEO} *	60		80		V	I _C =1mA I _B =0
Emitter-Base Breakdown Voltage	BVEBO	4		4		V	I _E =0.1mA I _C =0
Collector Cutoff Current	ICBO		100		100	nA	V _{CB} =V _{CBO} I _E =0
Collector-Emitter Saturation Voltage	V _{CE(sat)} *		0.25		0.25	V	I _C =100mA I _B =10mA
Base-Emitter Saturation Voltage	V _{BE} *		1.2		1.2	V	I _C =100mA V _{CE} =1V
D.C. Current Gain	HFE *	50		50			I _C =10mA V _{CE} =1V
		50		50			I _C =100mA V _{CE} =1V
Current Gain-Bandwidth Product	f _T	50		50		MHz	I _C =100mA V _{CE} =1V
		100		100		MHz	I _C =100mA V _{CE} =2V
Collector-Base Capacitance	C _{ob}		20		20	pF	V _{CB} =10V I _E =0 f=1MHz

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

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

