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

EBC

ABSOLUTE MAXIMUM RATINGS

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

		MPS-A05(NPN) MPS-A55(PNP)	MPS-A06(NPN) 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 ($t \leq 10mS$)	I_{CM}	1.5A	
Total Power Dissipation ($T_C \leq 25°C$)	P_{tot}	1.5W	
($T_A \leq 25°C$)		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-A55(PNP) MIN	MAX	MPS-A06(NPN) MPS-A56(PNP) MIN	MAX	UNIT	TEST CONDITIONS
Collector-Emitter Breakdown Voltage	LV_{CEO} *	60		80		V	I_C=1mA I_B=0
Emitter-Base Breakdown Voltage	BV_{EBO}	4		4		V	I_E=0.1mA I_C=0
Collector Cutoff Current	I_{CBO}		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	H_{FE} *	50		50			I_C=10mA V_{CE}=1V
		50		50			I_C=100mA V_{CE}=1V
Current Gain-Bandwidth Product	f_T						
MPS-A05, 06 only		50		50		MHz	I_C=100mA V_{CE}=1V
MPS-A55, 56 only		100		100		MHz	I_C=100mA V_{CE}=2V
Collector-Base Capacitance	Cob		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
($T_{A=25°C}$ unless otherwise noted)