MPS 6561 · MPS 6563

COMPLEMENTARY SILICON AF MEDIUM POWER TRANSISTORS

MICRO ELECTRONICS

THE MPS6560, MPS6561 (NPN) AND MPS6562, MPS6563 (PNP) ARE SILICON PLANAR EPITAXIAL TRANSISTORS DESIGNED FOR COMPLEMENTARY SYMMETRY AUDIO OUTPUT APPLICATIONS. THEY FEATURE LOW COLLECTOR TO EMITTER SATURATION VOLTAGE (0.23V TYPICAL @ I_C=500mA).

CASE TO-92A

EBC

ABSOLUTE MAXIMUM RATINGS

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

		MPS6560(NPN) MPS6562(PNP)	MPS6561(NPN) MPS6563(PNP)
Collector-Base Voltage	V_{CBO}	25V	20V
Collector-Emitter Voltage	V_{CEO}	25V	20V
Emitter-Base Voltage	V_{EBO}	5V	
Collector Current	I_C	0.6A	
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	MPS6560(NPN) MPS6562(PNP) MIN	MAX	MPS6561(NPN) MPS6563(PNP) MIN	MAX	UNIT	TEST CONDITIONS
Collector-Base Breakdown Voltage	BV_{CBO}	25		20		V	I_C=0.1mA I_E=0
Collector Cutoff Current	I_{CBO}		100		100	nA	V_{CB}=20V I_E=0
Collector Cutoff Current	I_{CEO}		100		100	nA	V_{CE}=V_{CEO} I_B=0
Emitter Cutoff Current	I_{EBO}		100		100	nA	V_{EB}=4V I_C=0
Collector-Emitter Saturation Voltage	$V_{CE(sat)}$*		0.5			V	I_C=500mA I_B=50mA
					0.5	V	I_C=350mA I_B=35mA
Base-Emitter Voltage	V_{BE} *		1.2			V	I_C=500mA V_{CE}=1V
					1.2	V	I_C=350mA V_{CE}=1V
D.C. Current Gain	H_{FE} *	35		35			I_C=10mA V_{CE}=1V
		50		50			I_C=100mA V_{CE}=1V
		50	200				I_C=500mA V_{CE}=1V
				50	200		I_C=350mA V_{CE}=1V
Current Gain-Bandwidth Product	f_T	60		60		MHz	I_C=10mA V_{CE}=10V
Collector-Base Capacitance	Cob		30		30	pF	V_{CB}=10V I_E=0 f=100kHz

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

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TYPICAL CHARACTERISTICS

(T_A=25°C unless otherwise noted)