

MPS 6561 · MPS 6563

COMPLEMENTARY SILICON AF MEDIUM POWER TRANSISTORS

MICRO ELECTRONICS

CASE TO-92A

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 @ $I_C=500mA$).



EBC

ABSOLUTE MAXIMUM RATINGS

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

MPS6560 (NPN)	MPS6561 (NPN)
MPS6562 (PNP)	MPS6563 (PNP)

Collector-Base Voltage	V_{CB0}	25V	20V
Collector-Emitter Voltage	V_{CE0}	25V	20V
Emitter-Base Voltage	V_{EB0}	5V	
Collector Current	I_C	0.6A	
Total Power Dissipation ($T_C \leq 25^\circ C$)	P_{tot}	1.5W	
($T_A \leq 25^\circ C$)		625mW	
Operating Junction & Storage Temperature	T_j, T_{stg}	-55 to 150°C	

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

PARAMETER	SYMBOL	MPS6560 (NPN)		MPS6561 (NPN)		UNIT	TEST CONDITIONS
		MPS6562 (PNP)	MIN	MAX	MIN		
Collector-Base Breakdown Voltage	BV_{CB0}	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		0.5	V	$I_C=500mA$ $I_B=50mA$
						V	$I_C=350mA$ $I_B=35mA$
Base-Emitter Voltage	V_{BE}^*		1.2			V	$I_C=500mA$ $V_{CE}=1V$
						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	C_{ob}		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

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

