COMPLEMENTARY DARLINGTON SILICON PLANAR TRANSISTORS

MICRO ELECTRONICS

MPS-D04 (NPN) and MPS-D54 (PNP) are complementary darlington silicon planar transistors designed for use in high gain driver applications.

CASE TO-92A

EBC

ABSOLUTE MAXIMUM RATINGS

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

Collector-Emitter Voltage	V_{CES}	25V
Emitter-Base Voltage	V_{EBO}	10V
Collector Current	I_C	300mA
Total Power Dissipation @ T_A=25°C @ T_C=25°C	P_{tot}	625mW 1.5W
Operating Junction & Storage Temperature	Tj, Tstg	-55 to +150°C

ELECTRICAL CHARACTERISTICS (T_A=25°C)

PARAMETER	SYMBOL	MIN	MAX	UNIT	TEST CONDITIONS
Collector-Emitter Breakdown Voltage	BV_{CES}	25		V	I_C=100μA V_{BE}=0
Emitter-Base Breakdown Voltage	BV_{EBO}	10		V	I_E=10μA I_C=0
Collector Cutoff Current	I_{CES}		1	μA	V_{CE}=20V V_{BE}=0
Collector Cutoff Current	I_{CBO}		1	μA	V_{CB}=20V I_E=0
Collector-Emitter Saturation Voltage	$V_{CE(SAT)}$		1	V	I_C=100mA I_B=0.1mA
D.C. Current Gain	H_{FE} *	1000 2000 1000			I_C=10mA V_{CE}=5V I_C=100mA V_{CE}=5V I_C=300mA V_{CE}=5V
Current Gain-Bandwidth Product	f_T	100		MHz	I_C=10mA V_{CE}=5V f=100MHz

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

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