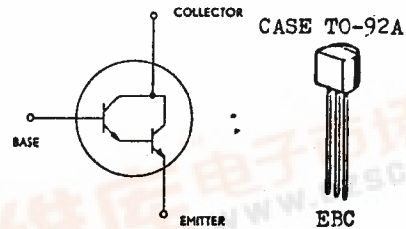


THE MPS-A13, MPS-A14 (NPN) AND MPS-A65, MPS-A66 (PNP) ARE SILICON PLANAR EPITAXIAL DARLINGTON TRANSISTORS FOR AF AMPLIFIERS REQUIRING HIGH INPUT IMPEDANCE.



ABSOLUTE MAXIMUM RATINGS		For p-n-p devices, voltage and current values are negative.		
		MPS-A13 (NPN) MPS-A14 (NPN)	MPS-A65 (PNP) MPS-A66 (PNP)	
Collector-Emitter Voltage ($V_{BE}=0$)	V_{CES}	30V	30V	
Emitter-Base Voltage	V_{EBO}	10V	8V	
Collector Current	I_C		0.3A	
Total Power Dissipation ($T_C \leq 25^\circ C$)	P_{tot}		1.2W	
			0.5W	
Operating Junction & Storage Temperature	T_j, T_{stg}	-55 to 150°C		

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

PARAMETER	SYMBOL	MIN	TYP	MAX	UNIT	TEST CONDITIONS
Collector-Emitter Breakdown Voltage	BV_{CES}	30			V	$I_C=0.1mA, I_B=0$
Collector Cutoff Current	I_{CBO}			100	nA	$V_{CB}=30V, I_E=0$
Emitter Cutoff Current	I_{EBO}			100	nA	$V_{EB}=V_{EBO}, I_C=0$
Collector-Emitter Saturation Voltage	$V_{CE(sat)}$ *		0.75	1.5	V	$I_C=100mA, I_B=0.1mA$
Base-Emitter Voltage	V_{BE} *		1.35	2.0	V	$I_C=100mA, V_{CE}=5V$
D.C. Current Gain	H_{FE} *	MPS-A13	5		$\times 10^3$	$I_C=10mA, V_{CE}=5V$
		MPS-A14	10		$\times 10^3$	
		MPS-A65	50		$\times 10^3$	
		MPS-A66	75		$\times 10^3$	
D.C. Current Gain	H_{FE} *	MPS-A13	10		$\times 10^3$	$I_C=100mA, V_{CE}=5V$
		MPS-A14	20		$\times 10^3$	
		MPS-A65	20		$\times 10^3$	
		MPS-A66	40		$\times 10^3$	
Current Gain-Bandwidth Product	f_T	MPS-A13, 14	125		MHz	$I_C=10mA, V_{CE}=5V$
		MPS-A65, 66	100		MHz	
Collector-Base Capacitance	C_{ob}	MPS-A13, 14		3	pF	$V_{CB}=10V, I_E=0$ $f=100kHz$
		MPS-A65, 66		4	pF	
Noise Figure ($f=1kHz, R_G=100\Omega$)	NF		2		dB	$I_C=1mA, V_{CE}=5V$

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

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

