

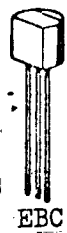


NPN SILICON GENERAL PURPOSE HIGH VOLTAGE TRANSISTORS

MICRO ELECTRONICS

CASE TO-92A

THE MPS-A42, MPS-A43 ARE NPN SILICON PLANAR TRANSISTORS FOR GENERAL PURPOSE HIGH VOLTAGE APPLICATIONS SUCH AS TV VIDEO OUTPUT STAGE AND GAS DISCHARGE TUBE DRIVER.



ABSOLUTE MAXIMUM RATINGS

		<u>MPS-A42</u>	<u>MPS-A43</u>
Collector-Base Voltage	V _{CBO}	300V	200V
Collector-Emitter Voltage	V _{CEO}	300V	200V
Emitter-Base Voltage	V _{EBO}	6V	6V
Collector Current	I _C	100mA	
Collector Peak Current (t ≤ 10ms)	I _{CM}	500mA	
Total Power Dissipation (T _C ≤ 25°C)	P _{tot}	1.5W	
(T _A ≤ 25°C)		625mW	
Operating Junction & Storage Temperature	T _j , T _{stg}	-55 to 150°C	

ELECTRICAL CHARACTERISTICS (T_A=25°C)

PARAMETER	SYMBOL	MPS-A42		MPS-A43		UNIT	TEST CONDITIONS
		MIN	MAX	MIN	MAX		
Collector-Base Breakdown Voltage	BV _{CBO}	300		200		V	I _C =0.1mA I _E =0
Collector-Emitter Breakdown	LV _{CEO}	300		200		V	I _C =1mA I _B =0
Emitter-Base Breakdown Voltage	BV _{EBO}	6		6		V	I _E =0.1mA I _C =0
Collector Cutoff Current	I _{CBO}	0.1		0.1		μA	V _{CB} =200V I _E =0
							V _{CB} =160V I _E =0
Emitter Cutoff Current	I _{EBO}	0.1		0.1		μA	V _{EB} =6V I _C =0
							V _{EB} =4V I _C =0
Collector-Emitter Saturation Voltage	V _{CE(sat)}	0.5		0.4		V	I _C =20mA I _B =2mA
Base-Emitter Saturation Voltage	V _{BE(sat)}	0.9		0.9		V	I _C =20mA I _B =2mA
D.C. Current Gain	H _{FE}	25		25			I _C =1mA V _{CE} =10V
		40		40			I _C =10mA V _{CE} =10V
		40		50	200		I _C =30mA V _{CE} =10V
Current Gain-Bandwidth Product	f _T	50		50		MHz	I _C =10mA V _{CE} =20V
Collector-Base Capacitance	C _{cb}	3		4		pF	V _{CB} =20V I _E =0 f=1MHz

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TYPICAL CHARACTERISTICS

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

