



Micro Commercial Components 20736 Marilla Street Chatsworth CA 91311

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## MPSW51A

## **Features**

- Halogen free available upon request by adding suffix "-HF"
- Lead Free Finish/RoHS Compliant ("P" Suffix designates RoHS Compliant. See ordering information)
- Epoxy meets UL 94 V-0 flammability rating
- Moisure Sensitivity Level 1

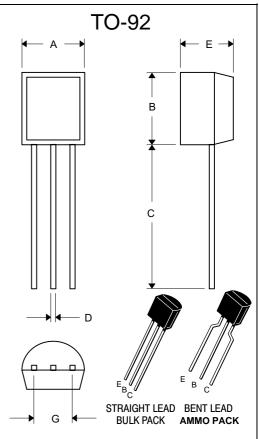
# **Maximum Ratings**

- Operating temperature : -55<sup>°</sup>C to +150<sup>°</sup>C
- Storage temperature : -55°C to +150°C

#### Electrical Characteristics @ $25^{\circ}$ C Unless Otherwise Specified

Symbol	Parameter	Unit		
V <sub>CEO</sub>	Collector-Emitter Voltage	-40	V	
V <sub>CBO</sub>	Collector-Base Voltage	-50 V		
V <sub>EBO</sub>	Emitter-Base Voltage	-5	V	
Ic	Collector Current -Continuous	-1.0	Α	
Pc	Collector Power Dissipation	625	mW	
RθJA	Thermal Resistance, Junction to Ambient	200 °C/W		
T <sub>j</sub>	Junction Temperature	150	50 °C	
T <sub>stg</sub>	Storage Temperature	-55-150	°C	

# PNP Plastic-Encapsulate Transistors



DIMENSIONS					
	INCHES		ММ		
DIM	MIN	MAX	MIN	MAX	NOTE
Α	.175	.185	4.45	4.70	
В	.175	.185	4.45	4.70	
С	.500		12.70		
D	.016	.020	0.41	0.63	
Е	.135	.145	3.43	3.68	
G	.095	.105	2.42	2.67	Straight Lead
G	.173	.220	4.40	5.60	Bent Lead

<sup>\*</sup> For ammo packing detailed specification, click here to visit our website of product packaging for details.



# MPSW51A

### ELECTRICAL CHARACTERISTICS (T<sub>a</sub>=25°C unless otherwise specified)

Parameter	Symbol	Test conditions	Min	Тур	Max	Unit
Collector-base breakdown voltage	$V_{(BR)CBO}$	$I_C = -0.1 \text{mA}, I_E = 0$	-50			V
Collector-emitter breakdown voltage	$V_{(BR)CEO}$	I <sub>C</sub> =-1mA,I <sub>B</sub> =0	-40			V
Emitter-base breakdown voltage	$V_{(BR)EBO}$	I <sub>E</sub> =-0.1mA,I <sub>C</sub> =0	-5			V
Collector cut-off current	I <sub>CBO</sub>	V <sub>CB</sub> =-40V,I <sub>E</sub> =0			-0.1	μA
Emitter cut-off current	I <sub>EBO</sub>	V <sub>EB</sub> =-3V,I <sub>C</sub> =0			-0.1	μΑ
	h <sub>FE(1)</sub>	V <sub>CE</sub> =-1V, I <sub>C</sub> =-0.01A	55			
DC current gain	h <sub>FE(2)</sub>	V <sub>CE</sub> =-1V, I <sub>C</sub> =-0.1A	60			
	h <sub>FE(3)</sub>	V <sub>CE</sub> =-1V, I <sub>C</sub> =-1A	50			
Collector-emitter saturation voltage	$V_{CE(sat)}$	I <sub>C</sub> =-1A,I <sub>B</sub> =-0.1A			-0.7	V
Base-emitter voltage	$V_{BE}$	I <sub>C</sub> =-1A, V <sub>CE</sub> =-1V			-1.2	V
Transition frequency	f <sub>T</sub>	V <sub>CE</sub> =-10V,I <sub>C</sub> =-50mA,f=20MHz	50			MHz
Collector output capacitance	$C_{ob}$	V <sub>CB</sub> =-10V,I <sub>E</sub> =0, f=1MHz			30	pF



#### **Ordering Information:**

Device	Packing
Part Number-AP	Ammo Packing: 20Kpcs/Carton
Part Number-BP	Bulk: 100Kpcs/Carton

Note: Adding "-HF" suffix for halogen free, eg. Part Number-AP-HF

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