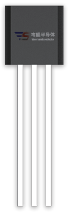
MPSA44 TRANSISTOR (NPN)



FEATURES

- High Breakdown Voltage

ORDERING INFORMATION

Part Number	Package	Packing Method	Pack Quantity
MPSA44	TO-92	Bulk	1000pcs/Bag
MPSA44-TA	TO-92	Tape	2000pcs/Box

MAXIMUM RATINGS (T_a=25℃ unless otherwise noted)

Symbol	Parameter	Value	Unit
V_{CBO}	Collector-Base Voltage	400	V
V_{CEO}	Collector-Emitter Voltage	400	V
V_{EBO}	Emitter-Base Voltage	6	V
I_C	Collector Current -Continuous	0.3	A
P_D	Collector Power Dissipation	625	mW
$R_{\theta JA}$	Thermal Resistance from Junction to Ambient	200	℃ /W
T_J,T_{stg}	Operation Junction and Storage Temperature Range	-55~+150	℃

T_a=25℃ unless otherwise specified

Parameter	Symbol	Test conditions	Min	Typ	Max	Unit
Collector-base breakdown voltage	$V_{(BR)CBO}$	I_C= 0.1mA,I_E=0	400			V
Collector-emitter breakdown voltage	$V_{(BR)CEO}{}^*$	I_C=1mA,I_B=0	400			V
Emitter-base breakdown voltage	$V_{(BR)EBO}$	I_E=0.1mA,I_C=0	6			V
Collector cut-off current	I_{CBO}	V_{CB}=400V,I_E=0			0.1	μA
Emitter cut-off current	I_{EBO}	V_{EB}=4V,I_C=0			0.1	μA
DC current gain	$h_{FE(1)}{}^*$	V_{CE}=10V, I_C=1mA	40			
	$h_{FE(2)}{}^*$	V_{CE}=10V, I_C=10mA	100		200	
	$h_{FE(3)}{}^*$	V_{CE}=10V, I_C=50mA	45			
	$h_{FE(4)}{}^*$	V_{CE}=10V, I_C=100mA	40			
Collector-emitter saturation voltage	$V_{CE(sat)(1)}{}^*$	I_C=1mA,I_B=0.1mA			0.4	V
	$V_{CE(sat)(2)}{}^*$	I_C=10mA,I_B=1mA			0.5	
	$V_{CE(sat)(3)}{}^*$	I_C=50mA,I_B=5mA			0.75	
Base-emitter saturation voltage	$V_{BE\ (sat)}{}^*$	I_C=10mA, I_B=1mA			0.75	V
Collector output capacitance	C_{ob}	V_{CB}=20V,I_E=0, f=1MHz			7	pF
Emitter input capacitance	C_{ib}	V_{EB}=0.5V,I_C=0, f=1MHz			130	pF

*Pulse test: pulse width ≤300μs, duty cycle≤ 2.0%.

CLASSIFICATION OF $h_{FE(2)}$

RANK	B
RANGE	100-200