

GMPSA44S

NPN EPITAXIAL PLANAR TRANSISTOR

Description

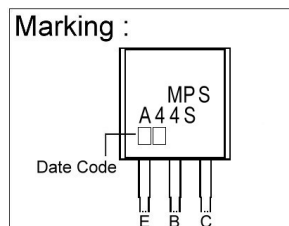
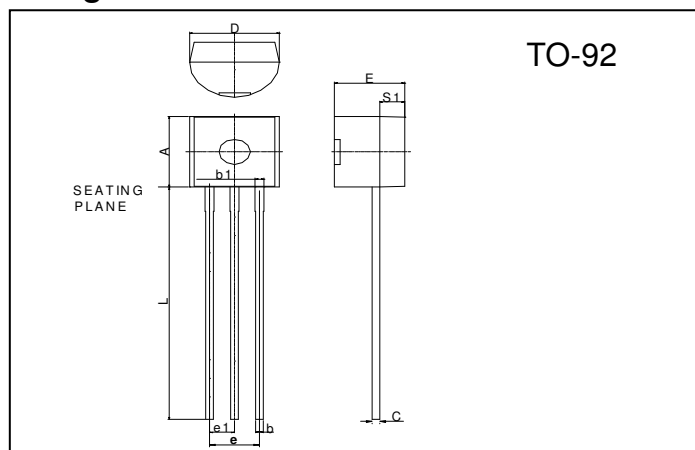
The GMPSA44S is designed for application that requires high voltage.

Features

*High Breakdown Voltage: 400(Min) at $I_C=1\text{mA}$

*High current Gain: $I_C=300\text{mA}$ at 25°C

*Complementary to GMPSA94S

Package Dimensions

REF.	Millimeter		REF.	Millimeter	
	Min.	Max.		Min.	Max.
A	4.45	4.7	D	4.44	4.7
S1	1.02	-	E	3.30	3.81
b	0.36	0.51	L	12.70	-
b1	0.36	0.76	e1	1.150	1.390
C	0.36	0.51	e	2.42	2.66

Absolute Maximum Ratings ($T_a = 25^\circ\text{C}$, unless otherwise specified)

Parameter	Symbol	Rated	Unit
Collector to Base Voltage	V_{CBO}	500	V
Collector to Emitter Voltage	V_{CEO}	400	V
Emitter to Base Voltage	V_{EBO}	6	V
Collect Current(DC)	I_C	300	mA
Junction Temperature	T_j	+150	$^\circ\text{C}$
Storage Temperature Range	T_{STG}	-55 ~ +150	$^\circ\text{C}$
Total Power Dissipation	P_D	625	mW

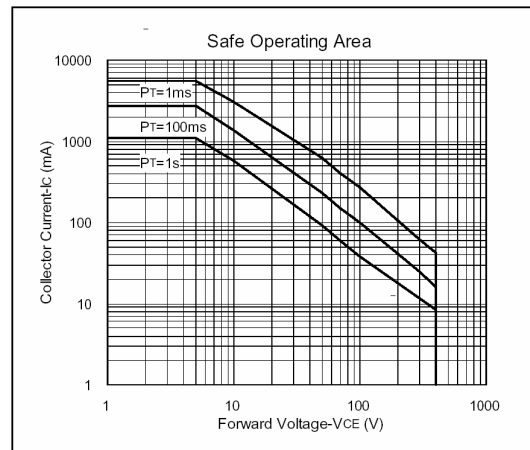
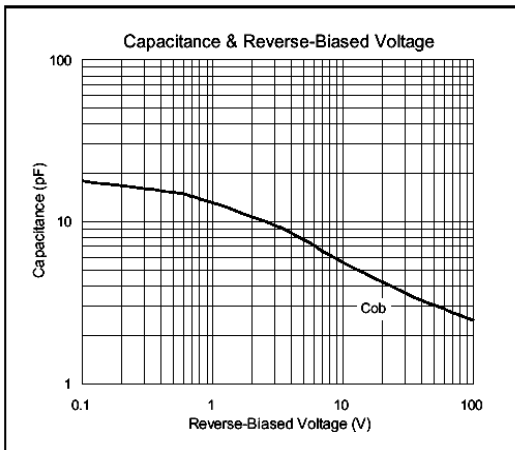
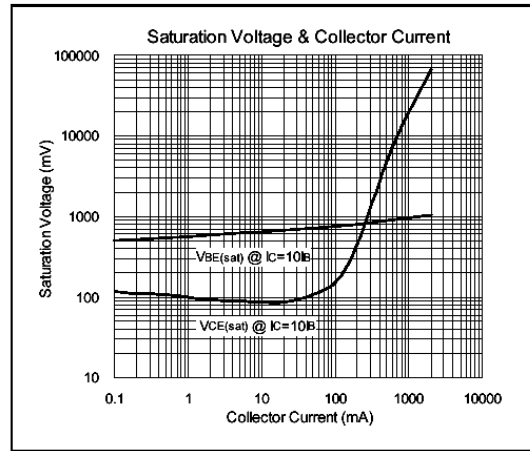
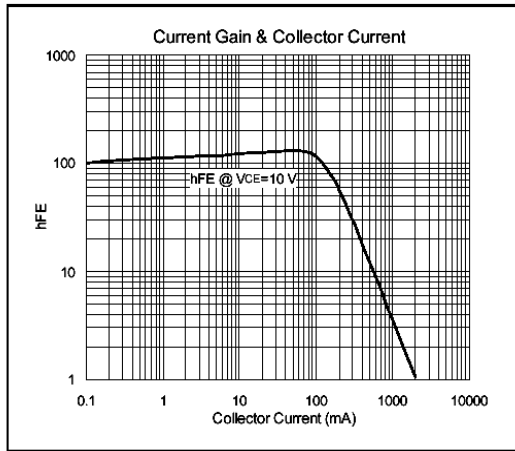
Electrical Characteristics ($T_a = 25^\circ\text{C}$, unless otherwise specified)

Symbol	Min.	Typ.	Max.	Unit	Test Conditions
V_{CBO}	500	-	-	V	$I_C=100\mu\text{A}$, $I_E=0$
V_{CEO}	400	-	-	V	$I_C=1\text{mA}$, $I_B=0$
V_{EBO}	6	-	-	V	$I_E=10\mu\text{A}$, $I_C=0$
I_{CBO}	-	-	100	nA	$V_{CB}=400\text{V}$, $I_E=0$
I_{EBO}	-	-	100	nA	$V_{EB}=4\text{V}$, $I_C=0$
I_{CES}	-	-	500	nA	$V_{CE}=400\text{V}$, $V_{BE}=0$
$V_{CE(sat)1}$	-	-	350	mV	$I_C=1\text{mA}$, $I_B=0.1\text{mA}$
$V_{CE(sat)2}$	-	-	350	mV	$I_C=20\text{mA}$, $I_B=2\text{mA}$
$V_{CE(sat)3}$	-	-	750	mV	$I_C=50\text{mA}$, $I_B=5\text{mA}$
$V_{BE(sat)}$	-	-	750	mV	$I_C=10\text{mA}$, $I_B=1\text{mA}$
h_{FE1}	40	-	-		$V_{CE}=10\text{V}$, $I_C=1\text{mA}$
h_{FE2}	50	-	300		$V_{CE}=10\text{V}$, $I_C=10\text{mA}$
h_{FE3}	45	-	-		$V_{CE}=10\text{V}$, $I_C=50\text{mA}$
h_{FE4}	20	-	-		$V_{CE}=10\text{V}$, $I_C=100\text{mA}$
C_{ob}	-	4	6	pF	$V_{CB}=20\text{V}$, $f=1\text{MHz}$, $I_E=0$

Classification of h_{FE2}

Rank	N	SD	SUM
Range	50-300	70-210	120-300

Characteristics Curve



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