

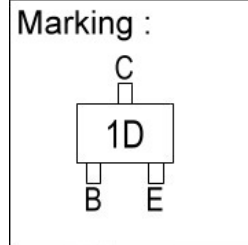
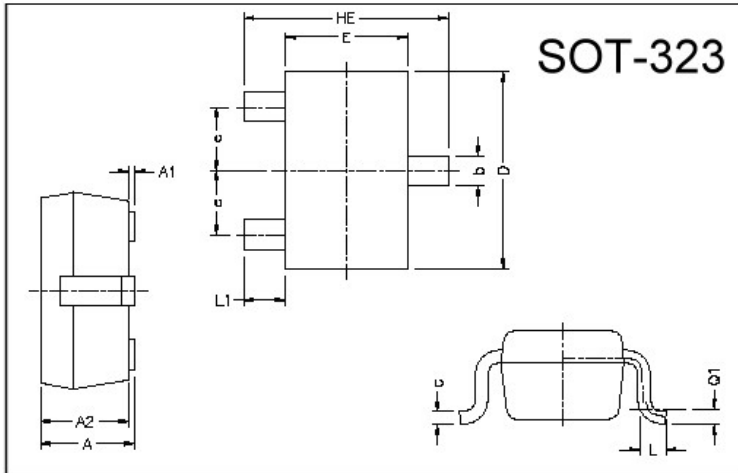
G SMBTA42

NPN EPITAXIAL PLANAR TRANSISTOR

Description

The GSMBTA42 is designed for high voltage transistor.

Package Dimensions



REF.	Millimeter		REF.	Millimeter	
	Min.	Max.		Min.	Max.
A	0.80	1.10	L1	0.42 REF.	
A1	0	0.10	L	0.15	0.35
A2	0.80	1.00	b	0.25	0.40
D	1.80	2.20	c	0.10	0.25
E	1.15	1.35	e	0.65 REF.	
HE	1.80	2.40	Q1	0.15 BSC.	

Absolute Maximum Ratings at Ta = 25°C

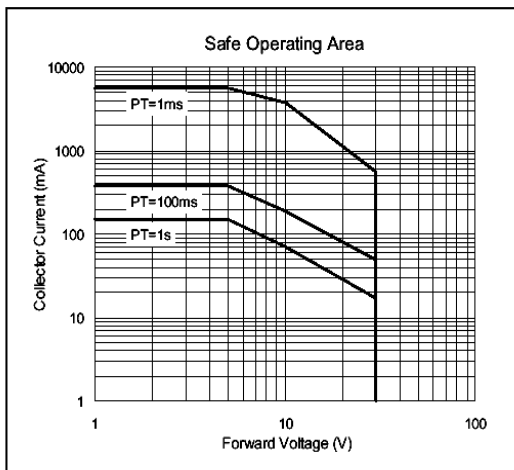
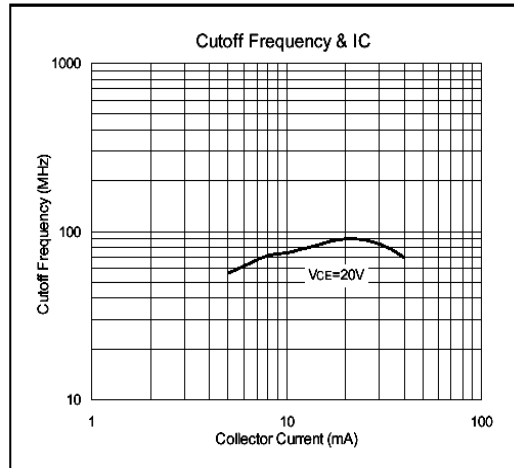
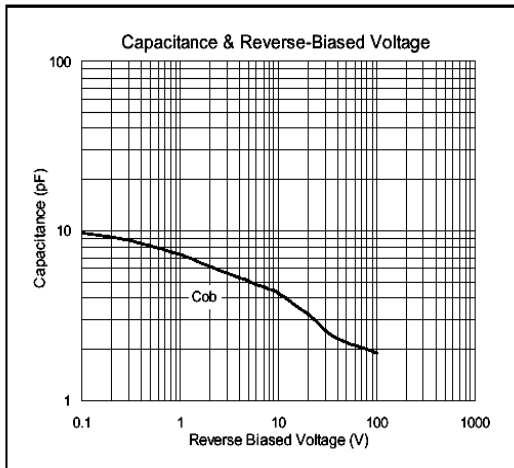
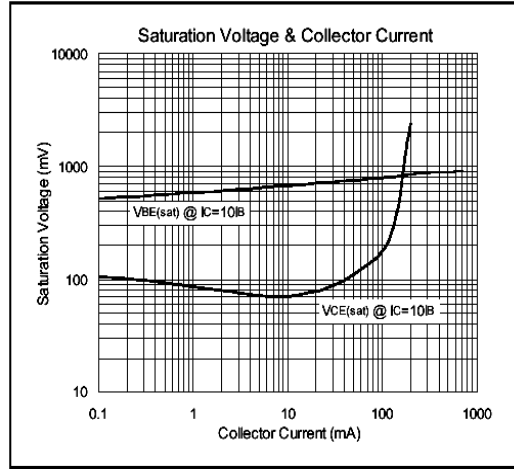
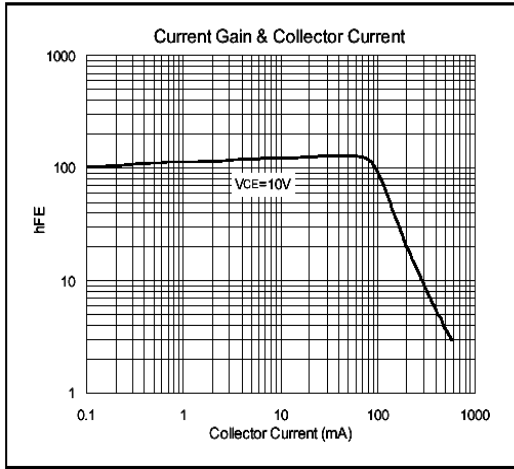
Parameter	Symbol	Ratings	Unit
Junction Temperature	Tj	+150	°C
Storage Temperature	Tstg	-55~+150	°C
Collector to Base Voltage	VcBO	300	V
Collector to Emitter Voltage	VCE0	300	V
Emitter to Base Voltage	VEBO	6	V
Collector Current	Ic	500	mA
Total Power Dissipation	Pd	350	mW

Electrical Characteristics (Ta = 25°C, unless otherwise noted)

Symbol	Min.	Typ.	Max.	Unit	Test Conditions
BVcBO	300	-	-	V	Ic=100uA, IE=0
BVCE0	300	-	-	V	Ic=1mA, IB=0
BVEBO	6	-	-	V	IE=100uA, Ic=0
IcBO	-	-	100	nA	VcB=200V, IE=0
IEBO	-	-	100	nA	VEB=6V, Ic=0
*VCE(sat)	-	-	500	mV	Ic=20mA, IB=2mA
*VBE(sat)	-	-	900	mV	Ic=20mA, IB=2mA
*hFE1	25	-	-		VCE=10V, Ic=1mA
*hFE2	40	-	-		VCE=10V, Ic=10mA
*hFE3	40	-	-		VCE=10V, Ic=30mA
fT	50	-	-	MHz	VCE=20V, Ic=10mA, f=100MHz
Cob	-	-	3	pF	VcB=20V, IE=0, f=1MHz

* Pulse Test: Pulse Width ≤ 380μs, Duty Cycle ≤ 2%

Characteristics Curve



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