

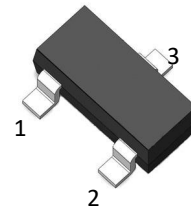
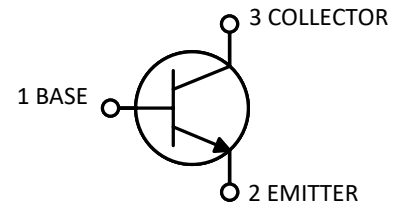
»Features

$V_{CE} = 60V$

$I_C = 1A$

$f_T = 150MHz @V_{CE}=10V, I_C=50mA, f=100MHz$

»Pin Configurations



»General Description

- Epitaxial planar die construction
- SOT-23 Plastic Package.

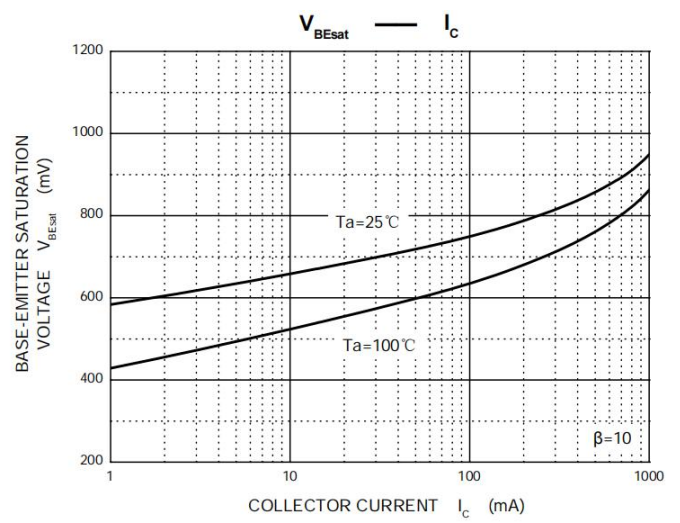
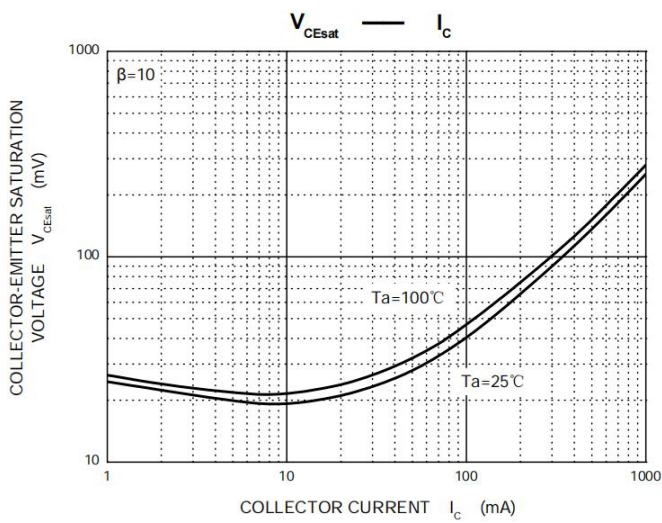
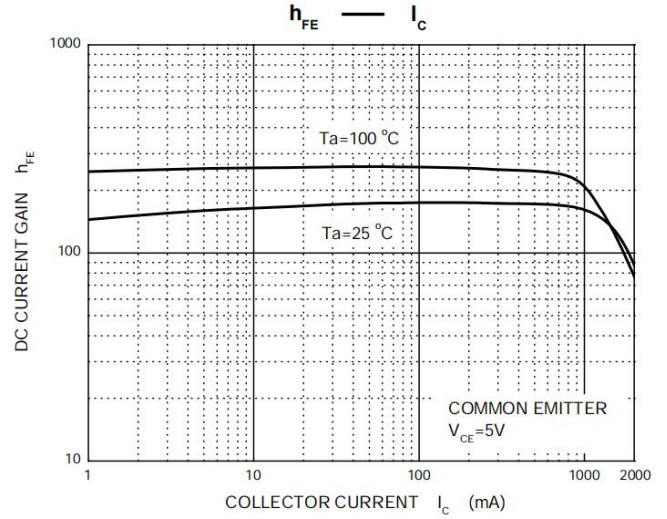
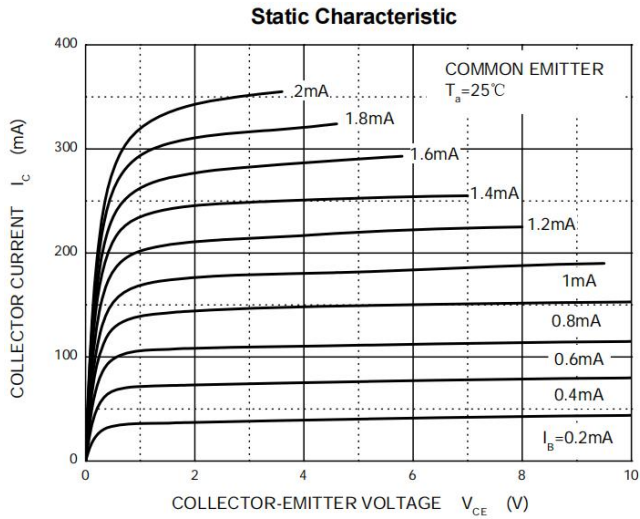
»Absolute Maximum Ratings @ $T_A=25^{\circ}C$  unless otherwise noted

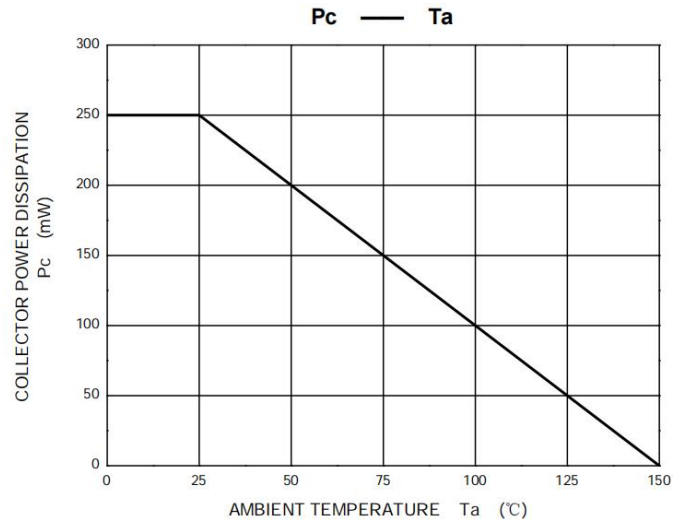
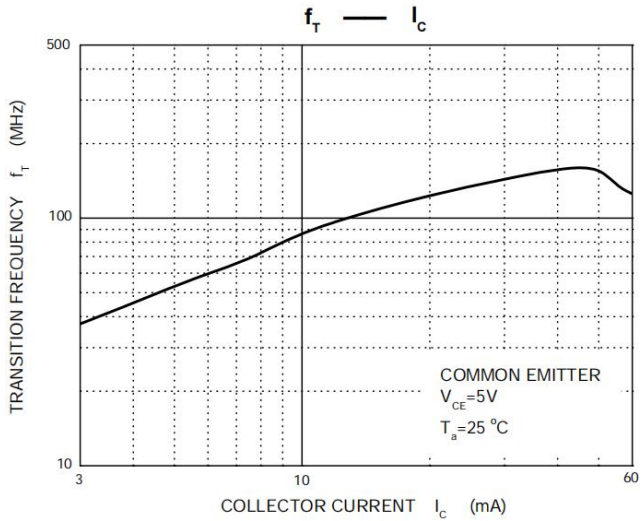
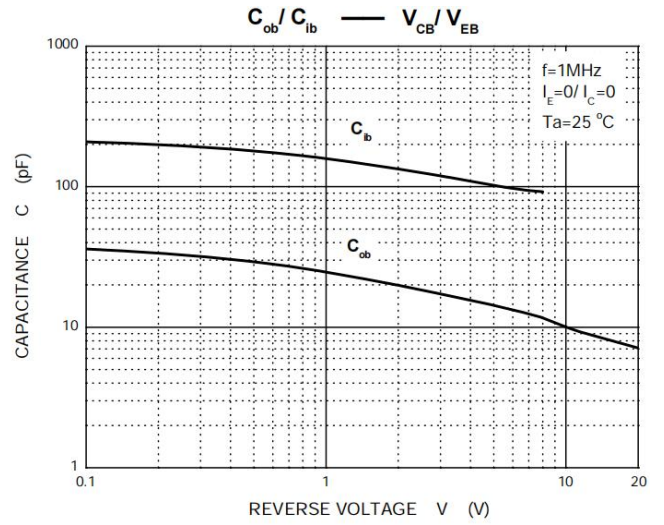
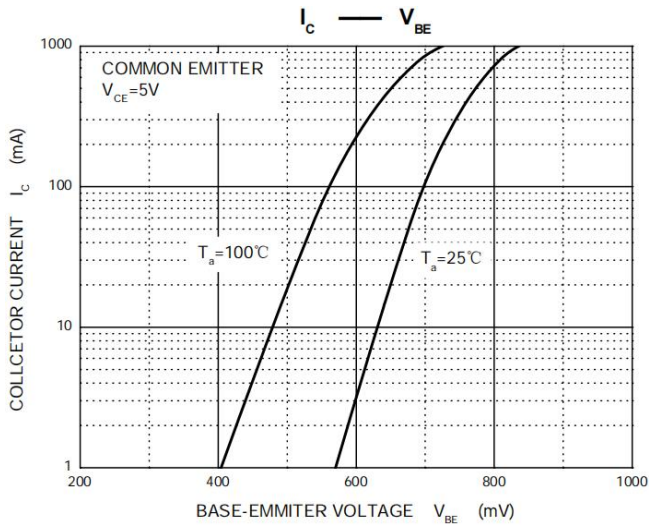
Symbol	Parameter	Value	Unit
$V_{CBO}$	Collector-Base Voltage	80	V
$V_{CEO}$	Collector-Emitter Voltage	60	V
$V_{EBO}$	Emitter-Base Voltage	5	V
$I_C$	Collector Current	1	A
$I_{CM}$	Peak Pulse Current	2	A
$P_C$	Collector Power Dissipation	250	mW
$R_{\theta JA}$	Thermal Resistance From Junction To Ambient	500	$^{\circ}C/W$
$T_J, T_{stg}$	Operation Junction And Storage Temperature Range	-55~+150	$^{\circ}C$

»Electrical Characteristics @ $T_A=25^{\circ}C$  unless otherwise noted

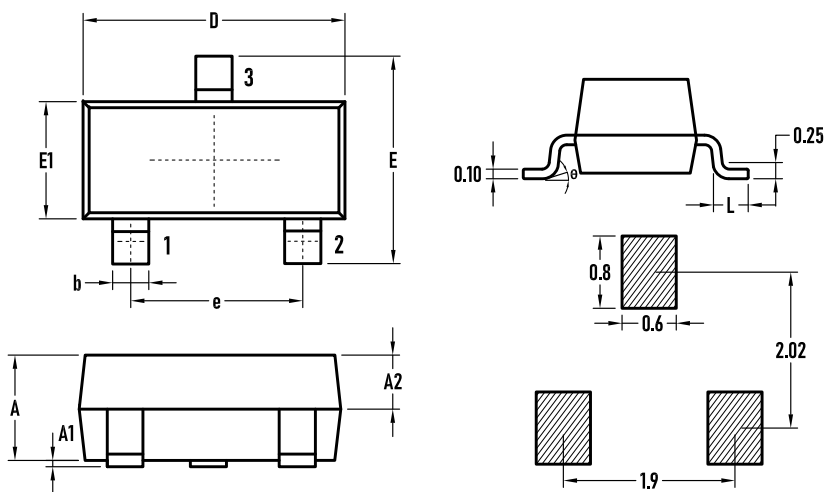
Symbol	Parameter	Test conditions	Min	Typ	Max	Unit
$V_{(BR)CBO}$	Collector-base breakdown voltage	$I_C=100\mu A, I_E=0$	80			V
$V_{(BR)CEO}$	Collector-emitter breakdown voltage	$I_C=10mA, I_B=0$	60			V
$V_{(BR)EBO}$	Emitter-base breakdown voltage	$I_E=100\mu A, I_C=0$	5			V
$I_{CBO}$	Collector cut-off current	$V_{CB}=60V, I_E=0$			100	nA
$I_{EBO}$	Emitter cut-off current	$V_{EB}=4V, I_C=0$			100	nA
$h_{FE(1)}$	DC current gain(1)	$V_{CE}=5V, I_C=1mA$	100			
$h_{FE(2)}$	DC current gain(2)	$V_{CE}=5V, I_C=500mA$	100		300	
$h_{FE(3)}$	DC current gain(3)	$V_{CE}=5V, I_C=1A$	80			
$h_{FE(4)}$	DC current gain(4)	$V_{CE}=5V, I_C=2A$	30			
$V_{CE(sat)1}$	Collector-emitter saturation voltage	$I_C=500mA, I_B=50mA$			0.25	V
$V_{CE(sat)2}$	Collector-emitter saturation voltage	$I_C=1A, I_B=100mA$			0.5	V
$V_{BE(sat)}$	Base-emitter saturation voltage	$I_C=1A, I_B=100mA$			1.1	V
$V_{BE}$	Base-emitter voltage	$V_{CE}=5V, I_C=1A$			1	V
$f_T$	Transition frequency	$V_{CE}=10V, I_C=50mA, f=100MHz$	150			MHz
$C_{ob}$	Collector output capacitance	$V_{CB}=10V, f=1MHz$			10	pF

»Typical Performance Characteristics ((T<sub>J</sub> = 25 °C, unless otherwise noted))



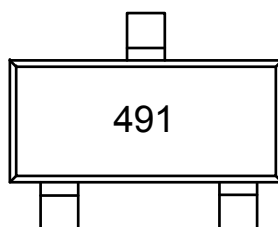


»Package Information SOT-23



SYMBOL	MILLIMETER		
	MIN.	Typ	MAX
A	0.90	1.00	1.10
A1	0.02	0.06	0.10
A2	–	0.60	–
D	2.85	2.90	2.95
b	0.37	0.40	0.43
E	2.35	2.40	2.45
E1	1.25	1.30	1.35
e	1.85	1.90	1.95
L	0.35	0.40	0.48
$\theta$	0	–	6°

»Marking



»Ordering information

Order code	Package	Base qty	Deliverymode
FMMT491	SOT-23	3K	Tape and reel