

Ordering number : ENN7021

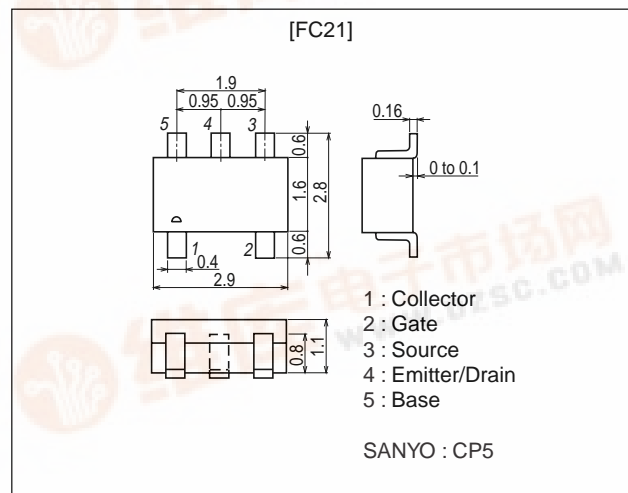
TR : NPN Epitaxial Planar Silicon Transistor
FET : N-Channel Silicon Junction FET**SANYO****FC21****High-Frequency Amplifier,
AM tuner RF Amplifier Applications****Features**

- The FC21 contains both a 2SK1740 equivalent chip and a 2SC2812 equivalent chip in the CP package, thus realizes higher efficiency in device mounting on the PCB.

Package Dimensions

unit : mm

2122

**Specifications****Absolute Maximum Ratings** at Ta=25°C

Parameter	Symbol	Conditions	Ratings	Unit
[FET]				
Drain-to-Source Voltage	V _{DSX}		40	V
Gate-to-Drain Voltage	V _{GDS}		-40	V
Gate Current	I _G		10	mA
Drain Current	I _D		75	mA
Allowable Power Dissipation	P _D		400	mW
[TR]				
Collector-to-Base Voltage	V _{CBO}		55	V
Collector-to-Emitter Voltage	V _{CEO}		50	V
Emitter-to-Base Voltage	V _{EB0}		6	V
Collector Current	I _C		150	mA
Collector Current(Pulse)	I _{CP}		300	mA
Base Current	I _B		30	mA
Collector Dissipation	P _C		200	mW
[Common Ratings]				
Total Dissipation	P _T		600	mW
Junction Temperature	T _J		150	°C
Storage Temperature	T _{stg}		-55 to +150	°C

Marking : 1C

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FC21

Electrical Characteristics at Ta=25°C

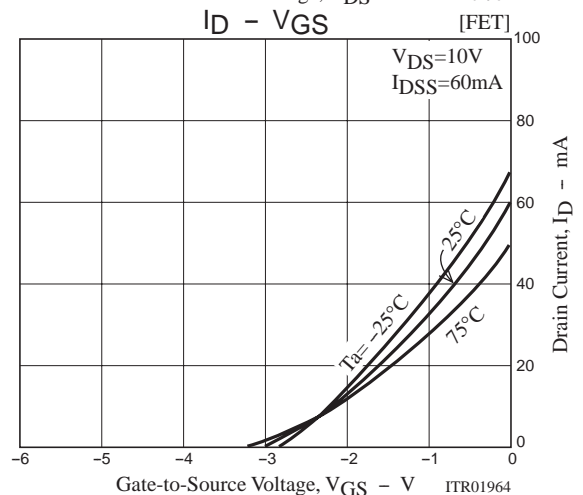
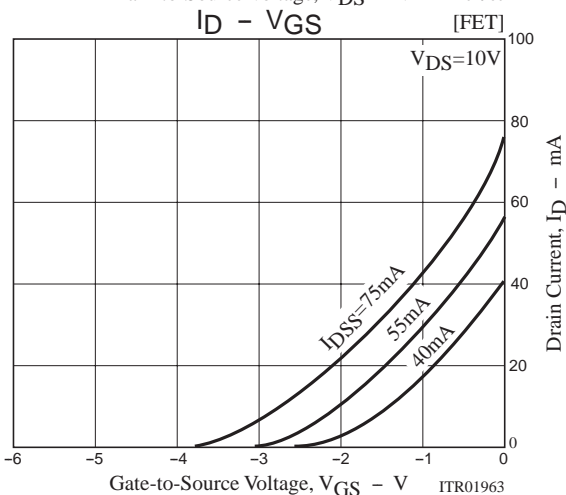
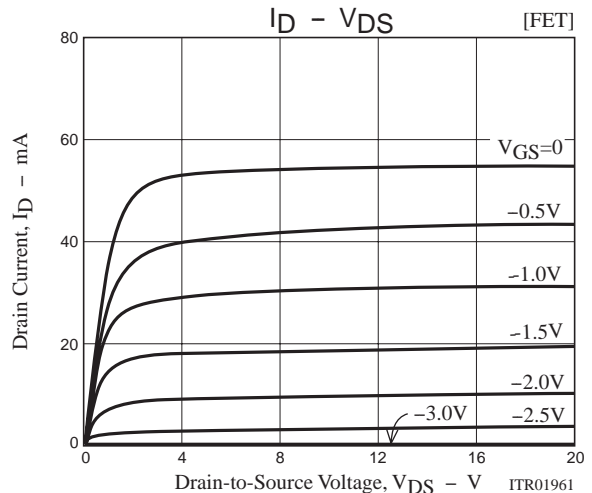
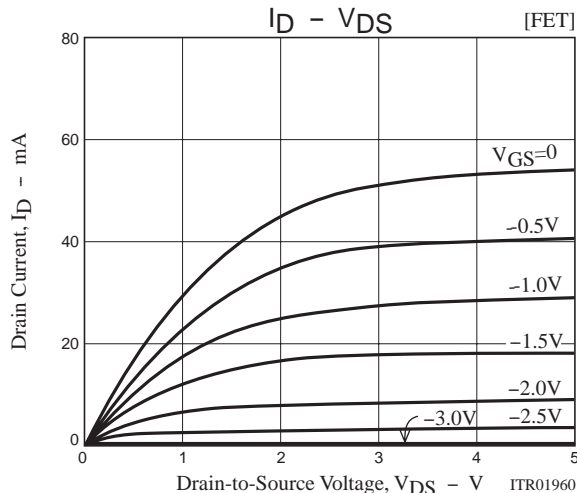
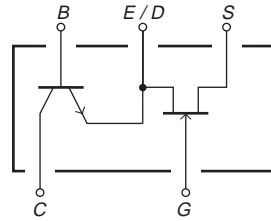
Parameter	Symbol	Conditions	Ratings			Unit
			min	typ	max	
[FET]						
Gate-to-Drain Breakdown Voltage	V(BR)GDS	IG=-10μA, VDS=0	-40			V
Gate Cutoff Current	IGSS	VGS=-20V, VDS=0			-1.0	nA
Cutoff Voltage	VGS(off)	VDS=10V, ID=100μA	-2.0	-3.0	-5.0	V
Drain Current	IDSS	VDS=10V, VGS=0	40*		75*	mA
Forward Transfer Admittance	yfs	VDS=10V, VGS=0, f=1kHz	22	30		mS
Input Capacitance	Ciss	VDS=10V, VGS=0, f=1MHz		11		pF
Reverse Transfer Capacitance	Crss	VDS=10V, VGS=0, f=1MHz		2.5		pF
Noise Figure	NF	VDS=10V, Rg=1kΩ, ID=1mA, f=1kHz		1.5		dB
[TR]						
Collector Cutoff Current	ICBO	VCB=35V, IE=0			0.1	μA
Emitter Cutoff Current	IEBO	VEB=4V, IC=0			0.1	μA
DC Current Gain	hFE	VCE=6V, IC=1mA	135		600	
Gain-Bandwidth Product	fT	VCE=6V, IC=10mA		100		MHz
Output Capacitance	Cob	VCB=6V, f=1MHz		3		pF
Collector-to-Emitter Saturation Voltage	VCE(sat)	IC=50mA, IB=5mA		0.1	0.5	V
Base-to-Emitter Saturation Voltage	VBE(sat)	IC=50mA, IB=5mA		0.8	1.0	V
Collector-to-Base Breakdown Voltage	V(BR)CBO	IC=10μA, IE=0	55			V
Collector-to-Emitter Breakdown Voltage	V(BR)CEO	IC=1mA, RBE=∞	50			V
Emitter-to-Base Breakdown Voltage	V(BR)EBO	IE=10μA, IC=0	6			V

* : The FC21 is classified by I_{DSS} as follows : (unit : mA)

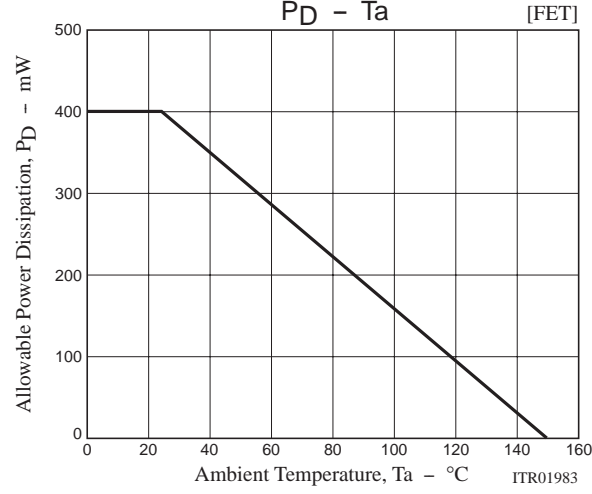
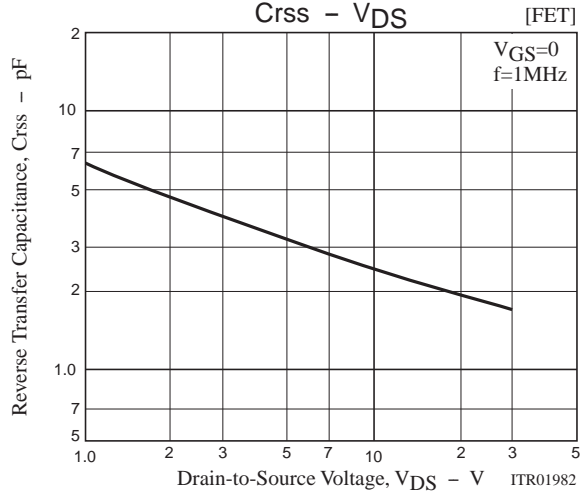
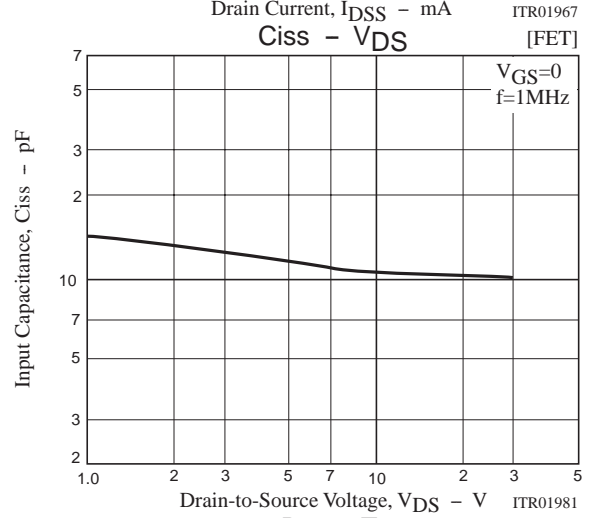
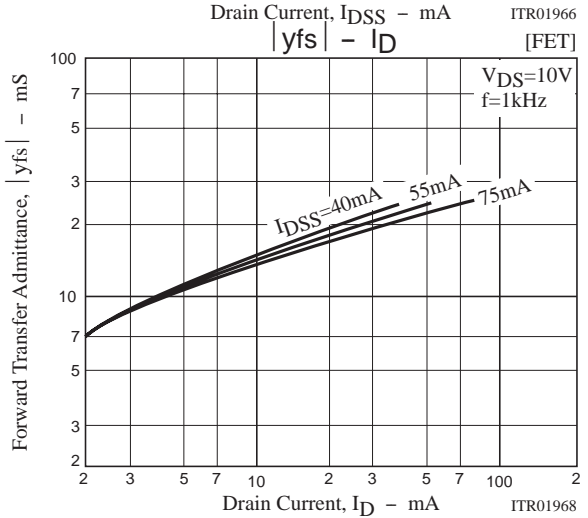
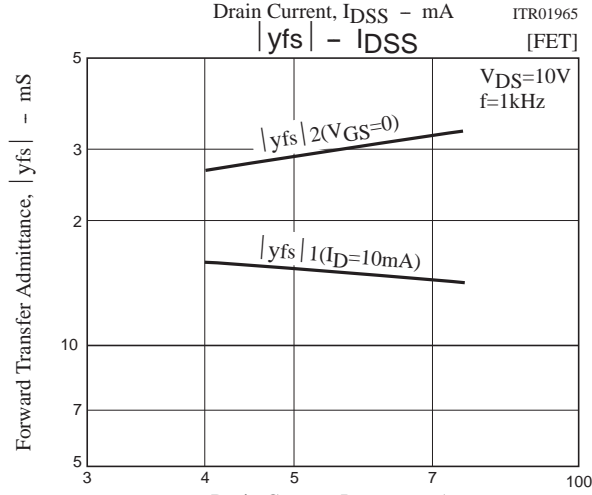
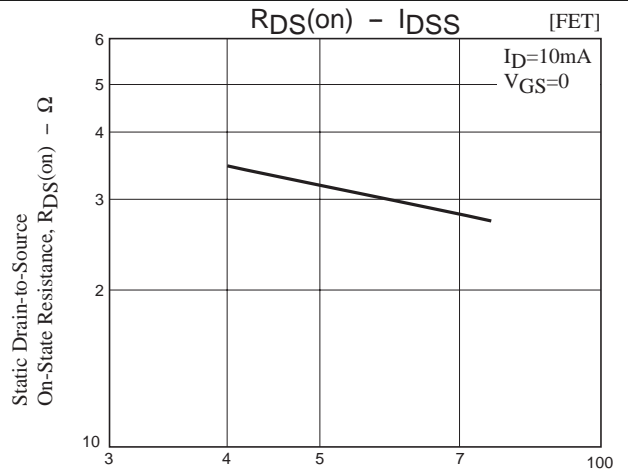
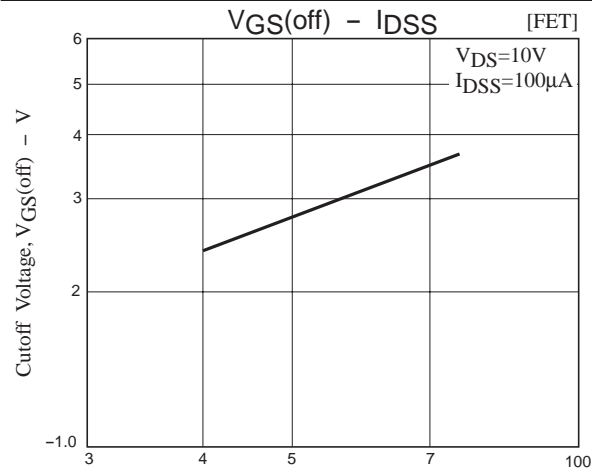
Rank	J	K	L
I_{DSS}	40 to 52	48 to 63	57 to 75

The specifications shown above are for each individual FET or transistor.

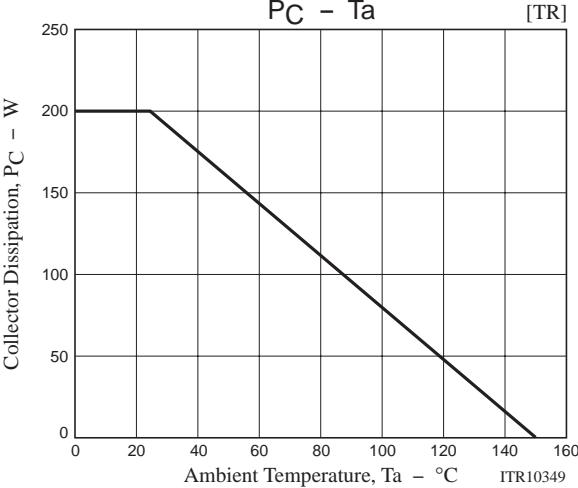
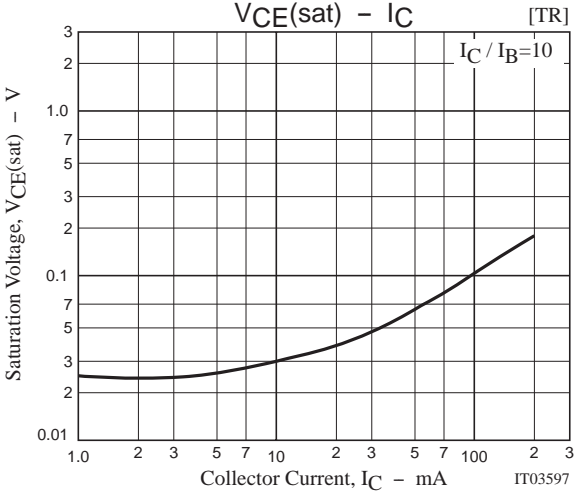
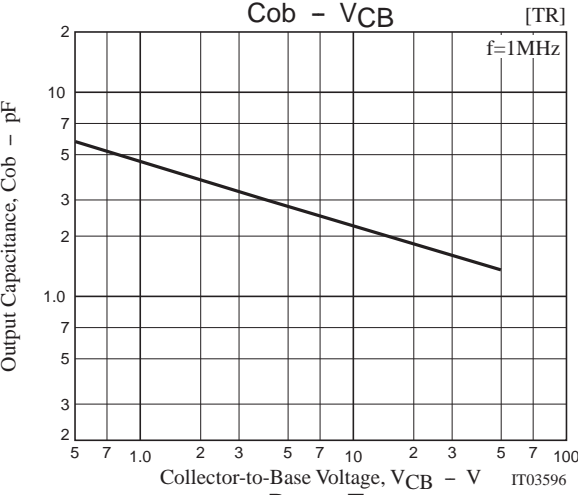
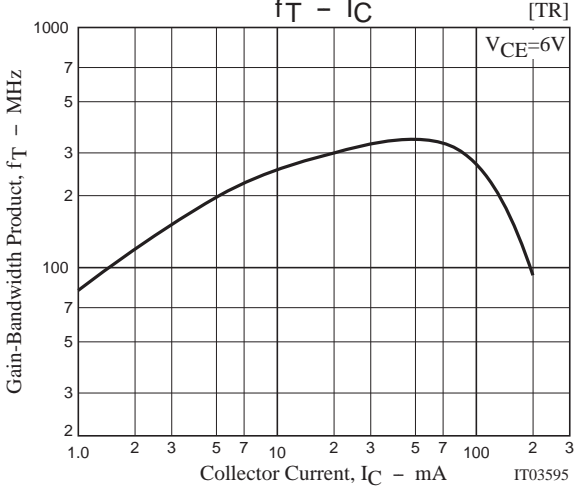
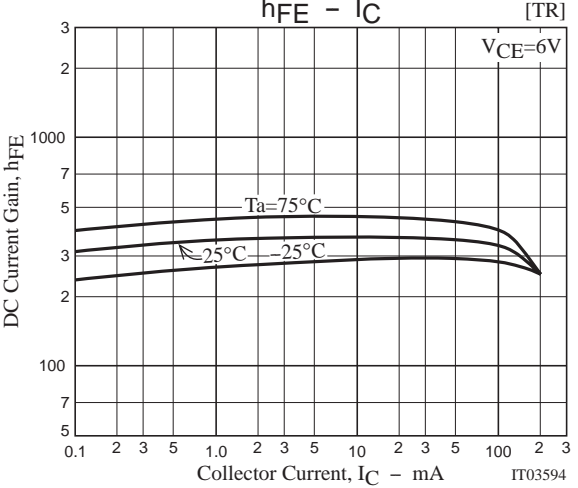
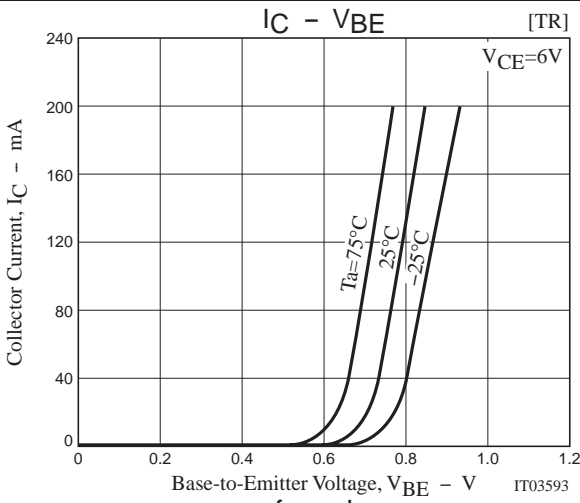
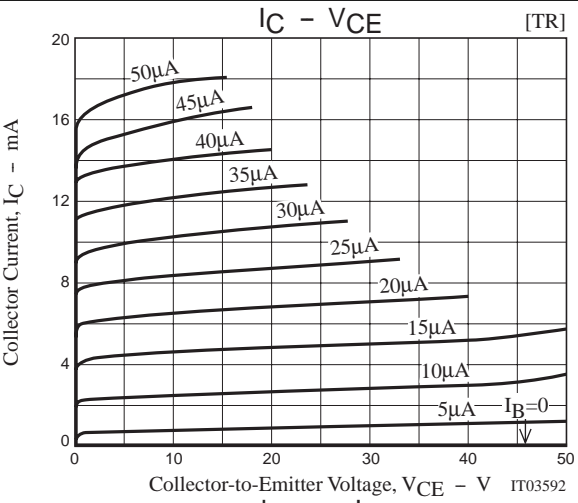
Electrical Connection



FC21



FC21



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