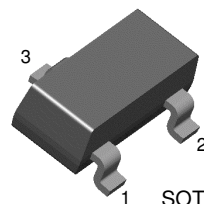


KSC2715

KSC2715

FM RADIO AMP, MIX, CONV, OSC, IF AMP



1. Base 2. Emitter 3. Collector

NPN Epitaxial Silicon Transistor

Absolute Maximum Ratings $T_a=25^\circ\text{C}$ unless otherwise noted

Symbol	Parameter	Value	Units
V_{CBO}	Collector-Base Voltage	35	V
V_{CEO}	Collector-Emitter Voltage	30	V
V_{EBO}	Emitter-Base Voltage	4	V
I_C	Collector Current	50	mA
P_C	Collector Power Dissipation	150	mW
T_J	Junction Temperature	150	$^\circ\text{C}$
T_{STG}	Storage Temperature	-55 ~ 150	$^\circ\text{C}$

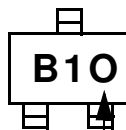
Electrical Characteristics $T_a=25^\circ\text{C}$ unless otherwise noted

Symbol	Parameter	Test Condition	Min.	Typ.	Max.	Units
I_{CBO}	Collector Cut-off Current	$V_{CB}=35\text{V}, I_E=0$			0.1	μA
I_{EBO}	Emitter Cut-off Current	$V_{EB}=4\text{V}, I_C=0$			1	μA
h_{FE}	DC Current Gain	$V_{CE}=12\text{V}, I_C=2\text{mA}$	70		240	
$V_{CE(sat)}$	Collector-Emitter Saturation Voltage	$I_C=10\text{mA}, I_B=1\text{mA}$			0.4	V
$V_{BE(on)}$	Base-Emitter On Voltage	$I_C=10\text{mA}, I_B=1\text{mA}$			1.0	V
f_T	Current Gain Bandwidth Product	$V_{CE}=10\text{V}, I_C=1\text{mA}$	100		400	MHz
C_{ob}	Output Capacitance	$V_{CB}=10\text{V}, I_E=0, f=1\text{MHz}$		2	3.2	pF

h_{FE} Classification

Classification	O	Y
h_{FE}	70 ~ 140	120 ~ 240

Marking



h_{FE} grade

Typical Characteristics

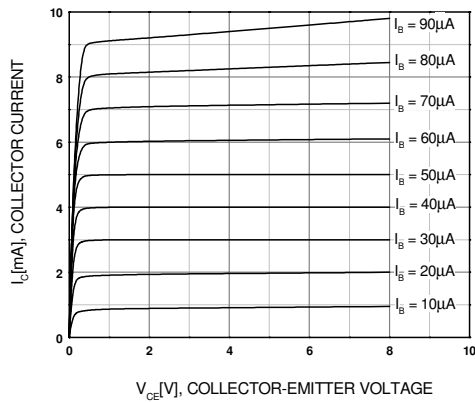


Figure 1. Static Characteristic

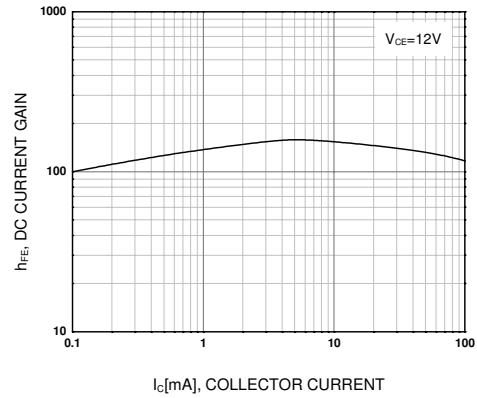


Figure 2. DC current Gain

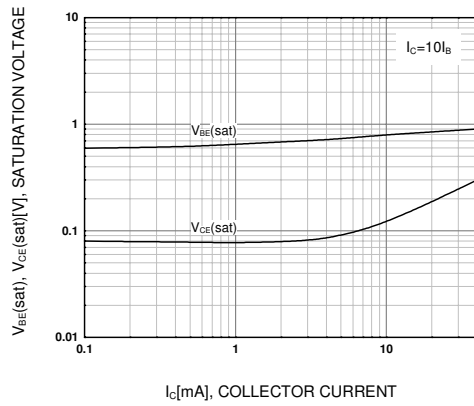


Figure 3. Base-Emitter Saturation Voltage
Collector-Emitter Saturation Voltage

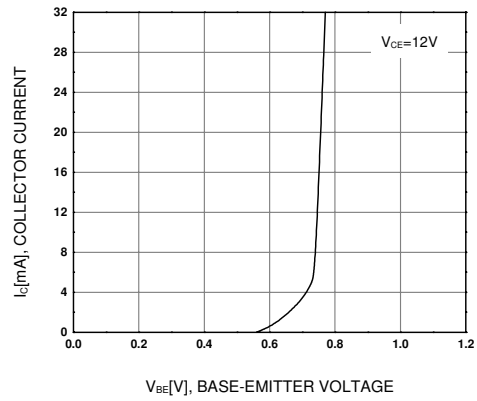


Figure 4. Base-Emitter On Voltage

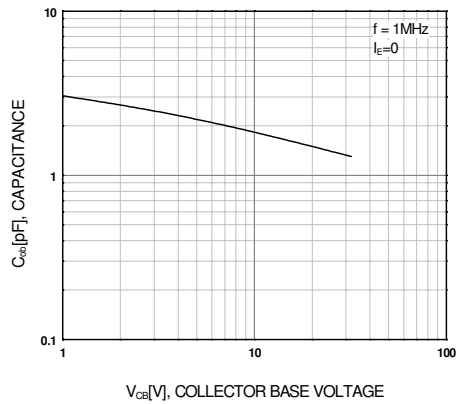


Figure 5. Collector Output Capacitance

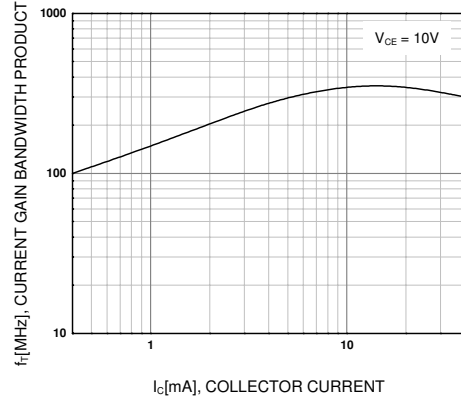
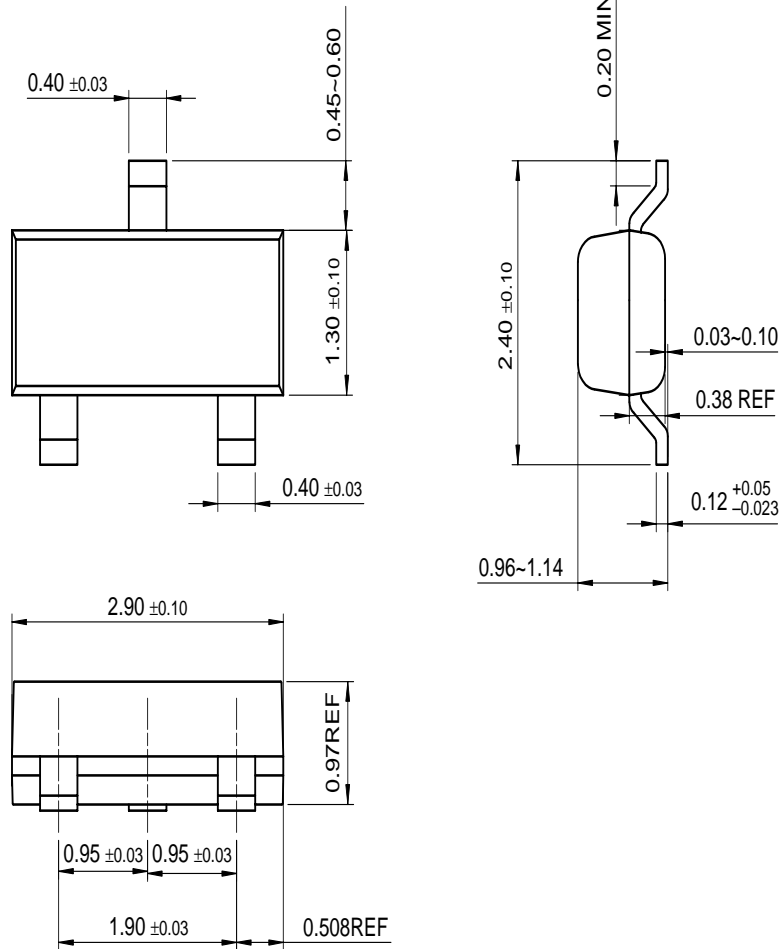


Figure 6. Current Gain Bandwidth Product

Package Dimensions

SOT-23



Dimensions in Millimeters

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DOMET™	GTO™	MICROWIRE™	QT Optoelectronics™	TinyLogic [®]
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E ² CMOS™	I ² C™	MSXPro™	RapidConfigure™	TruTranslation™
EnSigna™	i-Lo™	OCX™	RapidConnect™	UHC™
FACT™	ImpliedDisconnect™	OCXPro™	μSerDes™	UltraFET [®]
FACT Quiet Series™		OPTOLOGIC [®]	SILENT SWITCHER [®]	VCX™
Across the board. Around the world.™		OPTOPLANAR™	SMART START™	
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