

**isc Silicon NPN RF Transistor**

**2SC4251**

**DESCRIPTION**

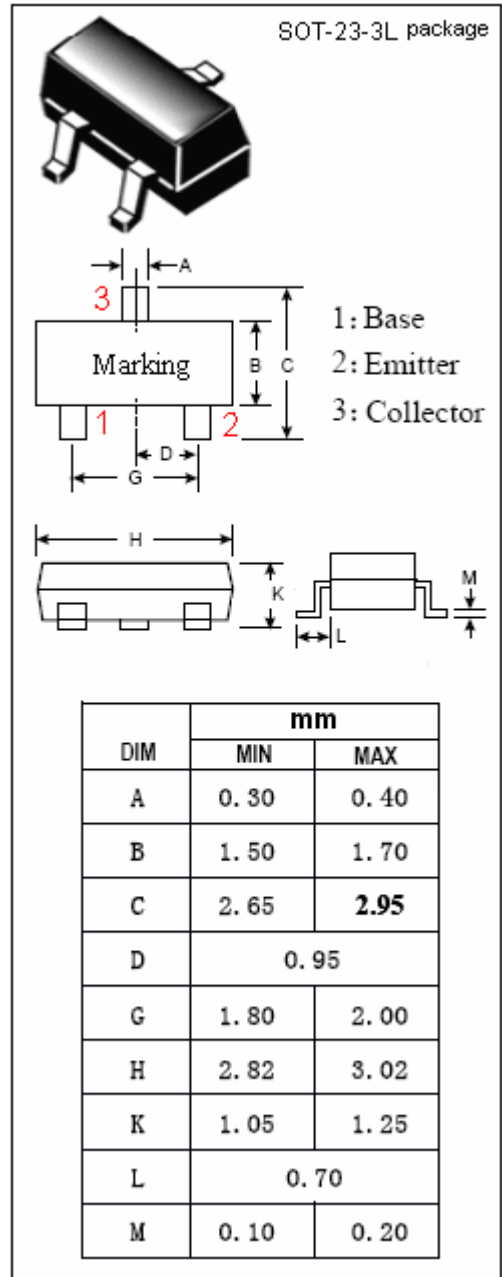
- High  $f_T$ -  
 $f_T = 1100$  MHz TYP.
- Low Output Capacitance-  
 $C_{OB} = 0.9$  pF TYP.

**APPLICATIONS**

- Designed for TV tuner ,VHF oscillator applications.

**ABSOLUTE MAXIMUM RATINGS( $T_a=25^\circ\text{C}$ )**

SYMBOL	PARAMETER	VALUE	UNIT
$V_{CBO}$	Collector-Base Voltage	30	V
$V_{CEO}$	Collector-Emitter Voltage	15	V
$V_{EBO}$	Emitter-Base Voltage	3	V
$I_C$	Collector Current-Continuous	50	mA
$I_B$	Base Current-Continuous	25	mA
$P_C$	Collector Power Dissipation @ $T_C=25^\circ\text{C}$	0.1	W
$T_J$	Junction Temperature	125	$^\circ\text{C}$
$T_{stg}$	Storage Temperature Range	-55~125	$^\circ\text{C}$



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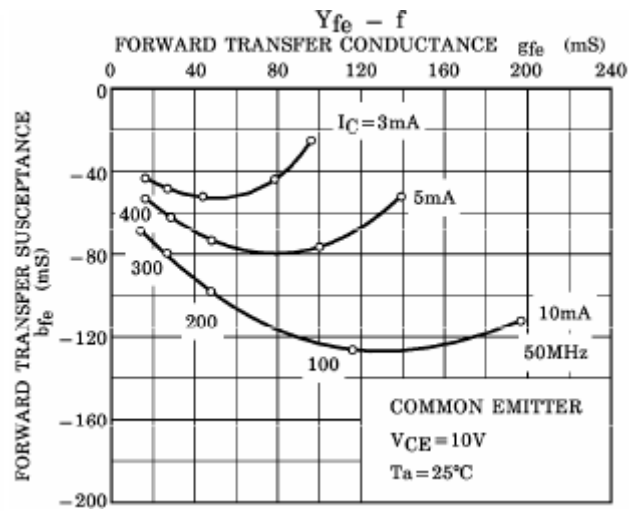
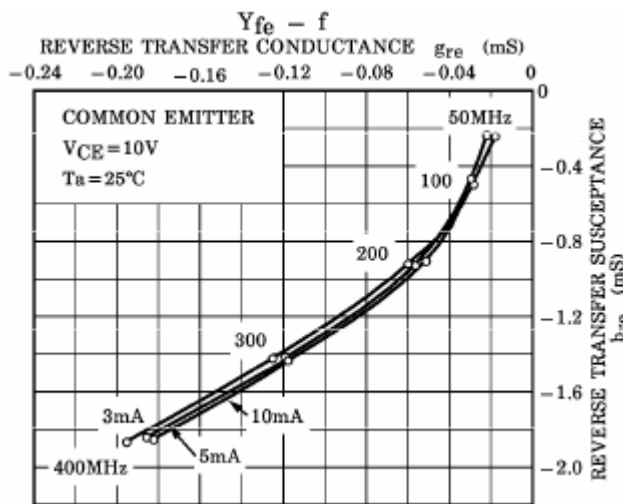
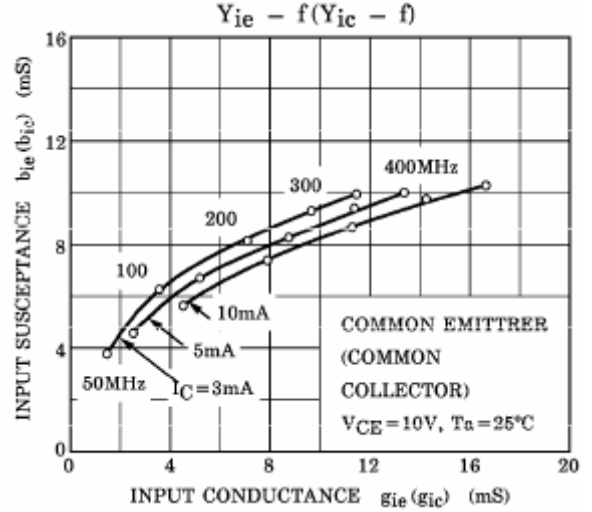
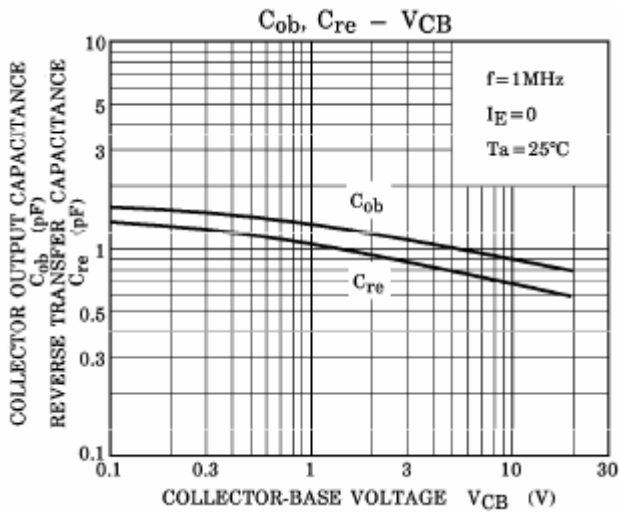
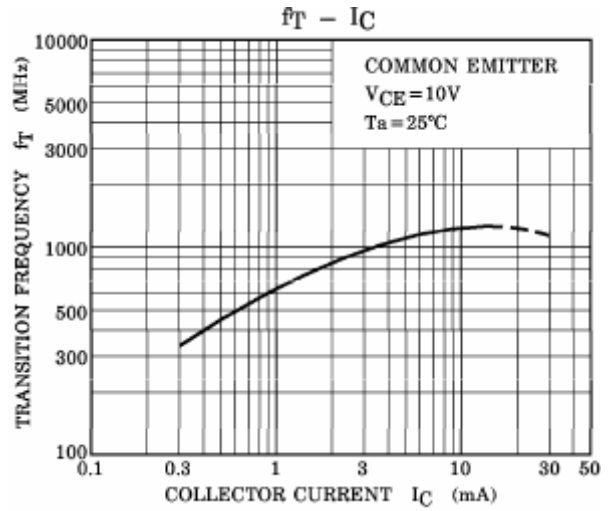
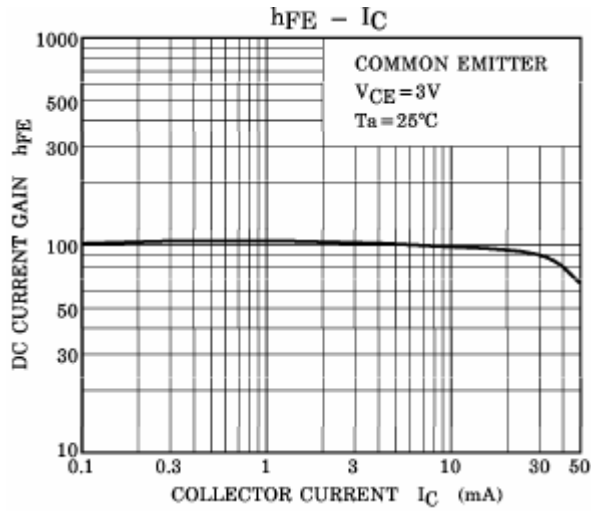
## ELECTRICAL CHARACTERISTICS

 $T_C=25^{\circ}\text{C}$  unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
$I_{CBO}$	Collector Cutoff Current	$V_{CB}=15\text{V}; I_E=0$			0.1	$\mu\text{A}$
$I_{EBO}$	Emitter Cutoff Current	$V_{EB}=3\text{V}; I_C=0$			1.0	$\mu\text{A}$
$V_{(BR)CEO}$	Collector-Emitter Breakdown Voltage	$I_C=1\text{mA}; I_B=0$	15			V
$h_{FE}$	DC Current Gain	$I_C=8\text{mA}; V_{CE}=3\text{V}$	40		200	
$f_T$	Current-Gain—Bandwidth Product	$I_C=8\text{mA}; V_{CE}=10\text{V}$	650	1100		MHz
$C_{OB}$	Output Capacitance	$I_E=0; V_{CB}=10\text{V}; f=1\text{MHz}$		0.9	1.3	pF
$r_{bb'} \cdot C_C$	Base Time Constant	$I_C=8\text{mA}; V_{CB}=10\text{V}; f=30\text{MHz}$		7	12	ps

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