

## isc Silicon NPN RF Transistor

2SC3862

## DESCRIPTION

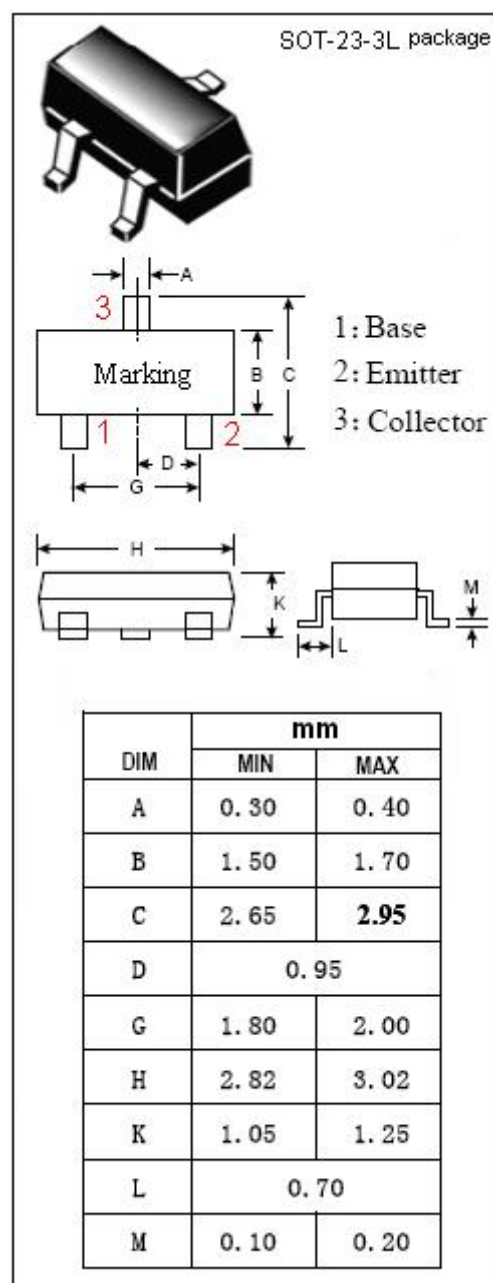
- High Gain Bandwidth Product  
 $f_T = 2400$  MHz TYP.
- 100% avalanche tested
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

## APPLICATIONS

- TV tuner, UHF mixer applications.
- VHF~UHF band RF amplifier 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 @ $T_c = 25^\circ\text{C}$	0.15	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
$V_{(BR)CEO}$	Collector-Emitter Breakdown Voltage	$I_C=1\text{mA}$ ; $I_B=0$	15			V
$I_{CBO}$	Collector Cutoff Current	$V_{CB}=30\text{V}$ ; $I_E=0$			0.1	$\mu\text{A}$
$I_{EBO}$	Emitter Cutoff Current	$V_{EB}=2\text{V}$ ; $I_C=0$			1.0	$\mu\text{A}$
$h_{FE}$	DC Current Gain	$I_C=5\text{mA}$ ; $V_{CE}=10\text{V}$	40		200	
$f_T$	Current-Gain—Bandwidth Product	$I_C=2\text{mA}$ ; $V_{CE}=10\text{V}$	1500	2400		MHz
$C_{re}$	Reverse Transfer Capacitance	$I_E=0$ ; $V_{CB}=10\text{V}$ ; $f=1.0\text{MHz}$		0.6	0.9	pF

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