

isc Silicon NPN RF Transistor

2SC2759

**DESCRIPTION**

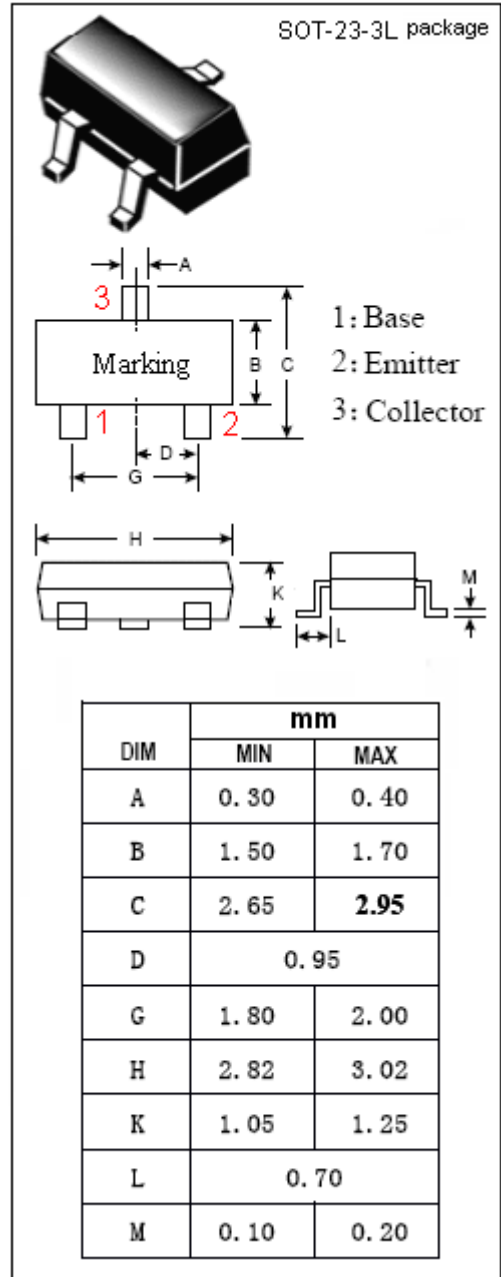
- Low Noise
  - High Conversion Gain
- $G_{cb} = 12.5\text{dB TYP. @} I_E = -5\text{mA, } V_{CB} = 10\text{V}$

**APPLICATIONS**

- Designed for use in VHF RF amplifier, local oscillator, mixer.

**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	14	V
$V_{EBO}$	Emitter-Base Voltage	3	V
$I_C$	Collector Current-Continuous	50	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
$I_{CBO}$	Collector Cutoff Current	$V_{CB}=15\text{V}; I_E=0$			0.1	$\mu\text{A}$
$h_{FE}$	DC Current Gain	$I_C=5\text{mA}; V_{CE}=10\text{V}$	40		180	
$f_T$	Current-Gain—Bandwidth Product	$I_C=5\text{mA}; V_{CE}=10\text{V}$	1.5	2.0		GHz
$C_{OB}$	Output Capacitance	$I_E=0; V_{CB}=10\text{V}; f=1.0\text{MHz}$		1.0	1.3	pF
$G_{cb}$	Conversion Gain	$I_E=-5\text{mA}; V_{CB}=10\text{V}; f=900\text{MHz}; f_{OSC}=935\text{MHz}, 115\text{dB}\mu\text{V}$	10	12.5		dB

◆  $h_{FE}$  Classification

Marking	U21	U22	U23
$h_{FE}$	40-80	60-120	90-180