

FUKUCOM COMPANY LTD.

福靈有限公司

FLAT P, 3/F, EVEREST INDUSTRIAL CENTRE, 396 KWUN TONG ROAD,
KWUN TONG, KOWLOON, HONG KONG.

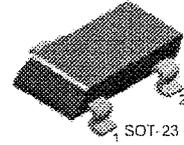
TEL: 2790-0314 FAX: 2790-0206

S9014S

Pre-amplifier, Low Level & Low Noise

*Complement to S9015S

*High H_{FE} And Good Linearity



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	50	V
V_{CEO}	Collector-Emitter Voltage	45	V
V_{EBO}	Emitter-Base Voltage	5	V
I_C	Collector Current	100	mA
P_C	Collector Dissipation	225	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
BV_{CBO}	Collector-Base Breakdown Voltage	$I_C=-100\mu\text{A}, I_E=0$	50			V
BV_{CEO}	Collector-Emitter Breakdown Voltage	$I_C=-1\text{mA}, I_B=0$	45			V
BV_{EBO}	Emitter-Base Breakdown Voltage	$I_E=-100\mu\text{A}, I_C=0$	5			V
I_{EBO}	Emitter Cut-off Current	$V_{CB}=50\text{V}, I_E=0$			50	ηA
I_{CBO}	Collector Cut-off Current	$V_{CE}=5\text{V}, I_C=0$			50	ηA
h_{FE}	DC Current Gain	$V_{CE}=5\text{V}, I_C=1\text{mA}$	60	300	1000	
$V_{CE(sat)}$	Collector-Emitter Saturation Voltage	$I_C=100\text{mA}, I_B=5\text{mA}$			0.3	V
$V_{BE(sat)}$	Base-Emitter Saturation Voltage	$I_C=100\text{mA}, I_B=5\text{mA}$			1.0	V
$V_{CE(on)}$	Collector-Emitter On Voltage	$V_{CE}=5\text{V}, I_C=2\text{mA}$	0.58	0.63	0.7	V
C_{ob}	Output Capacitance	$V_{CB}=10\text{V}, I_E=0, f=1\text{MHz}$		2.2	3.5	pF
f_T	Current Gain-Bandwidth Product	$V_{CE}=5\text{V}, I_C=10\text{mA}$	150	270		MHz
N_F	Noise Figure	$V_{CE}=5\text{V}, I_C=0.2\text{mA}, f=1\text{KHz}, R_s=2\text{Kohm}$			10	dB

Classification h_{FE}

h_{FE}	200-400
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Marking

