



# 2SC 945

NPN SILICON PLANAR EPITAXIAL TRANSISTOR

## MICRO ELECTRONICS

2SC 945 IS AN NPN SILICON PLANAR EPITAXIAL TRANSISTOR DESIGNED FOR AUDIO FREQUENCY AMPLIFIER. IT IS COMPLEMENTARY TO THE PNP TYPE 2SA733.

CASE TO-92B



ECB

### ABSOLUTE MAXIMUM RATINGS

Collector-Base Voltage	VCBO	60V
Collector-Emitter Voltage	VCEO	50V
Emitter-Base Voltage	VEBO	5V
Collector Current	IC(DC)	100mA
Collector Current	IC(PULSE)*	200mA
Base Current	IB(DC)	20mA
Base Current	IB(PULSE) *	40mA
Total Power Dissipation @ TA=25°C	Ptot	250mW
Operating Junction & Storage Temperature	Tj, Tstg	-55 to +125°C

### ELECTRICAL CHARACTERISTICS @ TA=25°C

PARAMETER	SYMBOL	MIN	MAX	UNIT	TEST CONDITIONS
Collector Cutoff Current	ICBO		100	nA	VCB=60V IE=0
Collector Cutoff Current	ICEO		1	µA	VCE=40V IB=0
Emitter Cutoff Current	IEBO		100	nA	VEB=5V IC=0
Collector-Emitter Saturation Voltage	VCE(SAT)		0.3	V	IC=100mA IB=10mA
Base-Emitter Saturation Voltage	VBE(SAT)		1	V	IC=100mA IB=10mA
Base-Emitter Voltage	VBE	0.55	0.65	V	IC=1mA VCE=6V
D.C. Current Gain	HFE1 *	50			IC=0.1mA VCE=6V
D.C. Current Gain	HFE2 **	90	600		IC=1mA VCE=6V
Current Gain-Bandwidth Product	fT	150	450	MHz	-IE=10mA VCE=6V
Output Capacitance	Cob		5	pF	VCB=6V IE=0 f=1MHz
Noise Figure	NF		15	dB	IC=0.1mA VCE=5V f=1kHz RG=2kΩ

\* Pulse Test : Pulse Width ≤ 10ms, Duty Cycle ≤ 50%

\*\* HFE2 is classified as follows:

GROUP R : 90-180

GROUP Q : 135-270

GROUP P : 200-400

GROUP K : 300-600

## MICRO ELECTRONICS LTD.

38 HUNG TO ROAD, KWUN TONG, HONG KONG. TELEX 43510  
KWUN TONG P. O. BOX 69477 CABLE ADDRESS "MICROTRON"  
TELEPHONE:- 3-430181-6 3-893363, 3-892423  
FAX: 3-410321