



SMALL SIGNAL HIGH GAIN LOW NOISE

捷多邦, 专业PCB打样工厂, 24小时加急出货

NPN SILICON PLANAR EPITAXIAL TRANSISTOR

MICRO ELECTRONICS

FEATURES

- High Gain h_{FE} 100-600 @1mA
- Excellent Linearity From 10 μ A to 10mA
- High Breakdown Voltage BV_{CBO} ... 60Vmin @0.1mA
- Low Saturation Voltage $V_{CE(sat)}$... 0.1V $_{typ}$ @10mA
- Low Noise Pre-amplifier
- Audio Frequency Amplifier
- Low Level General Applications
- Complementary to ME0411 ME0412 ME0413

THERMAL CHARACTERISTICS

R $_{th}$ (j-amb) in free air 0.5 deg C/mW
R $_{th}$ (j-case) 0.2 deg C/mW

ABSOLUTE MAXIMUM RATINGS

Total Dissipation 25°C free air 200mW
Total Dissipation 65°C case 425mW
Total Dissipation 25°C case 625mW
Operating Collector Junction Temperature 150°C
Storage Temperature Range -55°C to +150°C
Soldering Temperature (10 seconds time limit) 260°C

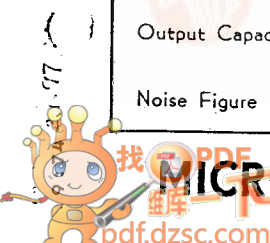
ELECTRICAL CHARACTERISTICS AT 25°C

CHARACTERISTICS	SYMBOL	ME 4101		ME 4102		ME 4103		UNITS	TEST CONDITIONS
		MIN.	MAX.	MIN.	MAX.	MIN.	MAX.		
Maximum Collector Current	I $_C$ MAX		100		100		100	mA	
Collector-Base Breakdown Voltage	BV $_{CBO}$	60		60		50		V	I $_C$ = 0.01mA I $_E$ = 0
Collector-Emitter Breakdown Voltage	LV $_{CEO}$	45		45		40		V	I $_C$ = 10mA I $_B$ = 0
Emitter-Base Breakdown Voltage	BV $_{EBO}$	5		5		5		V	I $_C$ = 0 I $_E$ = 0.01mA
Collector-Base Cutoff Current	I $_{CBO}$		10		10			nA	I $_E$ = 0 V $_{CB}$ = 50V
Collector-Base Cutoff Current	I $_{CBO}$					10		nA	I $_E$ = 0 V $_{CB}$ = 40V
Emitter-Base Cutoff Current	I $_{EBO}$		10		10		10	nA	I $_C$ = 0 V $_{EB}$ = 3V
Collector-Emitter Saturation Voltage	V $_{CE(sat)}$		0.25		0.25		0.25	V	I $_C$ = 10mA I $_B$ = 0.5mA
Base-Emitter Saturation Voltage	V $_{BE(sat)}$		0.8		0.8		0.8	V	I $_C$ = 10mA I $_B$ = 0.5mA
Forward Current Transfer Ratio	h $_{FE}$	40		100		40			I $_C$ = 0.01mA V $_{CE}$ = 5V
Forward Current Transfer Ratio	h $_{FE}$	70	300	200	600	100	600		I $_C$ = 1mA V $_{CE}$ = 5V
High Frequency Current Gain	h $_{fe}$	7.5		7.5		7.5			I $_C$ = 10mA f = 20MHz V $_{CE}$ = 5V
Input Capacitance	C $_{ib}$		4.5		4.5		4.5	pF	I $_C$ = 0 f = 1MHz V $_{EB}$ = 2V
Output Capacitance	C $_{ob}$		4		4		4	pF	I $_E$ = 0 f = 1MHz V $_{CB}$ = 10V
Noise Figure	N.F.		6		6		6	dB	R $_g$ = 2Kohm V $_{CE}$ = 5V I $_C$ = 0.2mA BW = 200Hz f = 1KHz

TO-92F



ME4102
ME4103



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NPN SILICON PLANAR EPITAXIAL TRANSISTOR

TYPICAL ELECTRICAL CHARACTERISTICS

ME 4101 • ME 4102 • ME 4103

