SOT23 NPN SILICON PLANAR SMALL SIGNAL TRANSISTOR

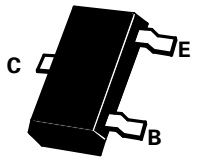
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FEATURES

* 60 Volt V_{CEO}

PARTMARKING DETAIL – 4G



SOT23

ABSOLUTE MAXIMUM RATINGS.

PARAMETER	SYMBOL	VALUE	UNIT
Collector-Base Voltage	V_{CBO}	60	V
Collector-Emitter Voltage	V_{CEO}	60	V
Emitter-Base Voltage	V_{EBO}	6	V
Peak Pulse Current	I_{CM}	200	mA
Continuous Collector Current	I_C	50	mA
Power Dissipation at T_{amb}=25°C	P_{tot}	330	mW
Operating and Storage Temperature Range	T_j:T_{stg}	-55 to +150	°C

ELECTRICAL CHARACTERISTICS (at T_{amb} = 25°C unless otherwise stated).

PARAMETER	SYMBOL	MIN.	MAX.	UNIT	CONDITIONS.
Collector-Base Breakdown Voltage	$V_{(BR)CBO}$	60		V	I_C=10μA, I_E=0
Collector-Emitter Breakdown Voltage	$V_{(BR)CEO}$	60		V	I_C=10mA, I_B=0*
Emitter-Base Breakdown Voltage	$V_{(BR)EBO}$	6		V	I_E=10μA, I_C=0
Collector Cut-Off Current	I_{CBO}		10 10	nA μA	V_{CB}=45V, I_E=0 V_{CB}=45V, I_E=0, T_{amb}=150°C
Emitter Cut-Off Current	I_{EBO}		10	nA	VBE=5V
Collector-Emitter Saturation Voltage	$V_{CE(sat)}$		0.35	V	I_C=1mA, I_B=100μA*
Base-Emitter Voltage	V_{BE}		0.95	V	I_C=1mA, V_{CE}=5V*
Static Forward Current Transfer Ratio	h_{FE}	30 100 20 175 200 250	500 800		I_C=1μA, V_{CE}=5V* I_C=10μA, V_{CE}=5V* I_C=10μA, V_{CE}=5V, T_{amb}=55°C I_C=100μA, V_{CE}=5V* I_C=500μA, V_{CE}=5V* I_C=1mA, V_{CE}=5V* I_C=10mA, V_{CE}=5V*
Output Capacitance	C_{obo}		6	pF	V_{CB}=5V, I_E=0, f=140KHz
Input Capacitance	C_{ibo}		6	pF	V_{BE}=0.5V, I_E=0, f=140KHz
Noise Figure	N		3	dB	I_C=200μA, V_{CE}=5V, R_g=2kΩ f=1kHz, f=200Hz
			3	dB	I_C=200μA, V_{CE}=5V, R_g=2kΩ f=30Hz to 15kHz at -3dB points

*Measured under pulsed conditions. Pulse width=300μs. Duty cycle ≤ 2%