SOT23 PNP SILICON PLANAR MEDIUM POWER SWITCHING TRANSISTORS

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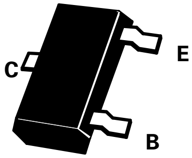
BSS69
BSS70



PARTMARKING DETAILS —		
	BSS69 -	L2
	BSS70 -	L3
	BSS69R -	L6
	BSS70R -	L7

ABSOLUTE MAXIMUM RATINGS.

PARAMETER	SYMBOL	VALUE	UNIT
Collector-Base Voltage	V_{CBO}	-40	V
Collector-Emitter Voltage	V_{CEO}	-40	V
Emitter-Base Voltage	V_{EBO}	-5	V
Peak Pulse Current	I_{CM}	-200	mA
Continuous Collector Current	I_C	-100	mA
Base Current	I_B	-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).

PARAMETER	SYMBOL	MIN.	MAX.	UNIT	CONDITIONS.
Collector-Emitter Breakdown Voltage	$V_{(BR)CEO}$	-40		V	I_C=-1mA
Collector-Base Breakdown Voltage	$V_{(BR)CBO}$	-40		V	I_C=-10µA
Emitter-Base Breakdown Voltage	$V_{(BR)EBO}$	-5		V	I_E=-10µA
Collector- Emitter Cut-off Current	I_{CES}		-50	nA	V_{CES}=-30V
Collector-Emitter Saturation Voltage	$V_{CE(sat)}$		-0.25 -0.40	V V	I_C=-10mA, I_B=-1mA I_C=-50mA, I_B=-5mA*
Base-Emitter Saturation Voltage	$V_{BE(sat)}$	-0.65	-0.85 -0.95	V V	I_C=-10mA, I_B=-1mA I_C=-50mA, I_B=-5mA*
Static Forward Current Transfer Ratio BSS69	h_{FE}	30 40 50 30 15	 150 		I_C=-100µA, I_C=-1mA, I_C=-10mA, V_{CE}=-1V I_C=-50mA*, I_C=-100mA*,
Static Forward Current Transfer Ratio BSS70	h_{FE}	60 80 100 60 30	 300 		I_C=-100µA, I_C=-1mA, I_C=-10mA, V_{CE}=-1V I_C=-50mA*, I_C=-100mA*,
Transition Frequency BSS69 BSS70	f_T	200 250		MHz MHz	I_C=-10mA, V_{CE}=-20V f=100MHz
Collector-Base Capacitance	C_{obo}		4.5	pF	V_{CB}=-5V, f=100kHz
Emitter-Base Capacitance	C_{ibo}		10	pF	V_{EB}=-0.5V, f=100kHz
Noise Figure	N	Typ. 5		dB	I_C=-100µA, V_{CE}=-5V R_S=1kΩ, f=10Hz to15.7 kHz
Switching times: Delay; Rise Storage Time Fall Time	t_d; t_f t_s t_f		35 225 70	ns ns ns	V_{CC}=-3V, I_C=-10mA I_{B1}= I_{B2} =-1mA

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