SOT89 PNP SILICON PLANAR MEDIUM POWER TRANSISTORS

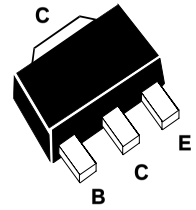
BCX51
BCX52
BCX53

ISSUE 3 – FEBRUARY 1996 ✪

COMPLEMENTARY TYPE – BCX51 – BCX54
BCX52 – BCX55
BCX53 – BCX56

PARTMARKING DETAILS –

BCX51 – AA	BCX52 – AE	BCX53 – AH
BCX51-10 – AC	BCX52-10 – AG	BCX53-10 – AK
BCX51-16 – AD	BCX52-16 – AM	BCX53-16 – AL



SOT89

ABSOLUTE MAXIMUM RATINGS.

PARAMETER	SYMBOL	BCX51	BCX52	BCX53	UNIT
Collector-Base Voltage	V_{CBO}	-45	-60	-100	V
Collector-Emitter Voltage	V_{CEO}	-45	-60	-80	V
Emitter-Base Voltage	V_{EBO}	-5			V
Peak Pulse Current	I_{CM}	-1.5			A
Continuous Collector Current	I_C	-1			A
Power Dissipation at T_{amb}=25°C	P_{tot}	1			W
Operating and Storage Temperature Range	T_j:T_{stg}	-65 to +150			°C

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

PARAMETER		SYMBOL	MIN.	TYP.	MAX.	UNIT	CONDITIONS.
Collector-Base Breakdown Voltage	BCX53 BCX52 BCX51	$V_{(BR)CBO}$	-100 -60 -45			V V V	I_C =-100µA I_C =-100µA I_C =-100µA
Collector-Emitter Breakdown Voltage	BCX53 BCX52 BCX51	$V_{(BR)CEO}$	-80 -60 -45			V	I_C =-10mA* I_C =-10mA* I_C =-10mA*
Emitter-Base Breakdown Voltage		$V_{(BR)EBO}$	-5			V	I_E =-10µA
Collector Cut-Off Current		I_{CBO}			-0.1 -20	µA µA	V_{CB} =-30V V_{CB} =-30V, T_{amb} =150°C
Emitter Cut-Off Current		I_{EBO}			-20	nA	V_{EB} =-4V
Collector-Emitter Saturation Voltage		$V_{CE(sat)}$			-0.5	V	I_C =-500mA, I_B =-50mA*
Base-Emitter Turn-On Voltage		$V_{BE(on)}$			-1.0	V	I_C =-500mA, V_{CE} =-2V*
Static Forward Current Transfer Ratio	 **-10** **-16**	h_{FE}	25 40 25 63 100		 250 160 250		I_C =-5mA, V_{CE} =-2V* I_C =-150mA, V_{CE} =-2V* I_C =-500mA, V_{CE} =-2V* I_C =-150mA, V_{CE} =-2V* I_C =-150mA, V_{CE} =-2V*
Transition Frequency		f_T	150			MHz	I_C =-50mA, V_{CE} =-10V, f=100MHz
Output Capacitance		C_{obo}			25	pF	V_{CB} =-10V, f=1MHz

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