SOT89 NPN SILICON PLANAR MEDIUM POWER TRANSISTORS

BCX54
BCX55
BCX56

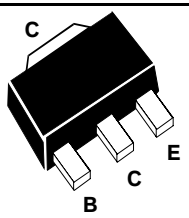
ISSUE 3 – FEBRUARY 1996 ✪

PARTMARKING DETAILS:-

BCX54 – BA	BCX54-10 – BC	BCX54-16 – BD
BCX55 – BE	BCX55-10 – BG	BCX55-16 – BM
BCX56 – BH	BCX56-10 – BK	BCX56-16 – BL

COMPLEMENTARY TYPES:-

BCX54 – BCX51 BCX55 – BCX52 BCX56 – BCX53



ABSOLUTE MAXIMUM RATINGS.

PARAMETER	SYMBOL	BCX54	BCX55	BCX56	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}	2			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	BCX54 BCX55 BCX56	$V_{(BR)CBO}$	45 60 100			V	I_C =100μA
Collector-Emitter Breakdown Voltage	BCX54 BCX55 BCX56	$V_{(BR)CEO}$	45 60 80			V	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}			15	pF	V_{CB} =10V, f=1MHz

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