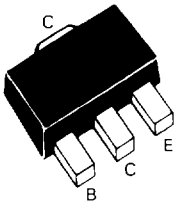
SOT89 PNP SILICON PLANAR MEDIUM POWER TRANSISTOR

2SA1213
2SA1213Y

FEATURES
* LOW SATURATION VOLTAGE
* FAST SWITCHING
COMPLEMENTARY TYPE - 2SC2873

PART MARKING DETAILS - 2SA1213 – NY
2SA1213Y – NO



ABSOLUTE MAXIMUM RATINGS.

PARAMETER	SYMBOL	VALUE	UNIT
Collector-Base Voltage	V_{CBO}	-50	V
Collector-Emitter Voltage	V_{CEO}	-50	V
Emitter-Base Voltage	V_{EBO}	-5	V
Peak Pulse Current	I_{CM}	-6	A
Continuous Collector Current	I_C	-2	A
Power Dissipation at T_{amb}= 25°C	P_{TOT}	1	W
Operating and Storage Temperature Range	tj:tstg	-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	$V_{(BR)CBO}$	-50			V	I_C=-100μA
Collector-Emitter Breakdown Voltage	$V_{(BR)CEO}$	-50			V	I_C=-10mA
Emitter-Base Breakdown Voltage	$V_{(BR)EBO}$	-5			V	I_E=-100μA
Collector Cut-Off Current	I_{CBO}			-0.1	μA	V_{CB}=-50V
Emitter Cut-Off Current	I_{EBO}			-0.1	μA	V_{EB}=-4V
Collector-Emitter Saturation Voltage	$V_{CE(SAT)}$			-0.5	V	I_C=-1A, I_B=-0.5A*
Base-Emitter Saturation Voltage	$V_{BE(SAT)}$			-1.2	V	I_C=-1A, I_B=-0.5A*
Base-Emitter Turn-On Voltage	$V_{BE(ON)}$		-0.8	-1.0	V	IC=-1A, V_{CE}=-2V*
Static Forward Current Transfer Ratio	h_{FE} 2SC1213Y	70 20 120				I_C=-500mA, V_{CE}=-2V* I_C=-2A, V_{CE}=-2V* I_C=-500mA, V_{CE}=-2V*
Transitional Frequency	f_T		120		MHz	I_C=-0.5A, V_{CE}=-2V f=100MHz
Output Capacitance	C_{obo}		40		pF	V_{CB}=-10V, f=1MHz
Switching Times	T_{on}		0.1		ns	I_C=-500mA, V_{CC}=-10V I_{B1}=I_{B2}=-50mA
	T_{stg}		1.0		ns	
	T_{off}		0.1		ns	

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