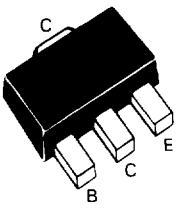
SOT89 NPN SILICON PLANAR MEDIUM POWER TRANSISTOR

2SC2873
2SC2873Y

FEATURES

* LOW SATURATION VOLTAGE.
* FAST SWITCHING.
* COMPLEMENTARY TYPE - 2SA1213.

PARTMARKING DETAILS - 2SC2873 - MY
2SC2873Y - MO



ABSOLUTE MAXIMUM RATINGS

PARAMETER	SYMBOL	2SC2873 2SC2873Y	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	ICM	6	A
Continuous Collector Current	I_C	2	A
Power Dissipation @ T_{amb}=25°c	P_{TOT}	1	W
Operating And Storage Temperature Range	tj:tstg	-65 TO +150	°C

ELECTRICAL CHARACTERISTICS (at Tamb=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}=5V
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	I_C=1A, V_{CE}=2V *
Static Forward Current Transfer Ratio	h_{FE}	70		240		I_C=500mA, V_{CE}=2V *
		20				I_C=2A, V_{CE}=2V *
	2SC2873Y	120		240		I_C=500mA, V_{CE}=2V *
Transition Frequency	f_T		120		MHz	I_C=0.5A, V_{CE}=2V, f=100MHz
Output Capacitance	C_{obo}		30		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%**