Elektronische Bauelemente

MMBT591

-1A , -80V

PNP Plastic Encapsulated Transistor

RoHS Compliant Product
A suffix of "-C" specifies halogen & lead-free

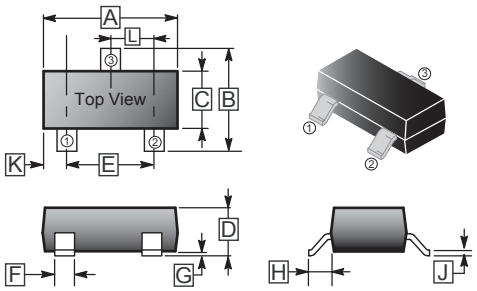
FEATURES

Low equivalent on-resistance

MARKING

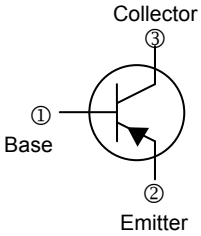
591

SOT-23



PACKAGE INFORMATION

Package	MPQ	Leader Size
SOT-23	3K	7' inch



REF.	Millimeter		REF.	Millimeter	
	Min.	Max.		Min.	Max.
A	2.70	3.04	G	-	0.18
B	2.10	2.80	H	0.40	0.60
C	1.20	1.60	J	0.08	0.20
D	0.89	1.40	K	0.6 REF.	
E	1.78	2.04	L	0.85	1.15
F	0.30	0.50			

MAXIMUM RATINGS (T_A = 25°C unless otherwise specified)

Parameter	Symbol	Ratings	Unit
Collector - Base Voltage	V_{CBO}	-80	V
Collector - Emitter Voltage	V_{CEO}	-60	V
Emitter - Base Voltage	V_{EBO}	-5	V
Collector Current - Continuous	I_C	-1	A
Peak Pulse Current	I_{CM}	-2	A
Collector Power Dissipation	P_C	250	mW
Junction, Storage Temperature	T_J, T_{STG}	150, -55~150	°C

ELECTRICAL CHARACTERISTICS (T_A = 25°C unless otherwise specified)

Parameter	Symbol	Min.	Typ.	Max.	Unit	Test Conditions
Collector-Base Breakdown Voltage	$V_{(BR)CBO}$	-80	-	-	V	I_C= -100μA, I_E=0
Collector-Emitter Breakdown Voltage[1]	$V_{(BR)CEO}$	-60	-	-	V	I_C= -10mA, I_B=0
Emitter-Base Breakdown Voltage	$V_{(BR)EBO}$	-5	-	-	V	I_E= -100μA, I_C=0
Collector Cut-Off Current	I_{CBO}	-	-	-0.1	μA	V_{CB}= -60V, I_E=0
Emitter Cut-Off Current	I_{EBO}	-	-	-0.1	μA	V_{EB}= -4V, I_C=0
DC Current Gain [1]	h_{FE}	100	-	-		V_{CE}= -5V, I_C= -1mA
		100	-	300		V_{CE}= -5V, I_C= -500mA
		80	-	-		V_{CE}= -5V, I_C= -1A
		15	-	-		V_{CE}= -5V, I_C= -2A
Collector-Emitter Saturation Voltage [1]	$V_{CE(sat)}$	-	-	-0.3	V	I_C= -500mA, I_B = -50mA
		-	-	-0.6		I_C= -1A, I_B = -100mA
Base-Emitter Saturation Voltage [1]	$V_{BE(sat)}$	-	-	-1.2	V	I_C= -1A, I_B = -100mA
Base-emitter voltage	V_{BE}	-	-	-1	V	V_{CE}= -5V, I_C= -1A
Transition frequency	f_T	150	-	-	MHz	V_{CE}= -10V,I_C= -50mA, f=100MHz
Collector Output Capacitance	C_{ob}	-	-	10	pF	V_{CB}= -10V, f=1MHz

NOTE:
1. Measured under pulsed conditions, Pulse width=300μs, Duty cycle≤2%.

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CHARACTERISTIC CURVES