

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

FEATURES

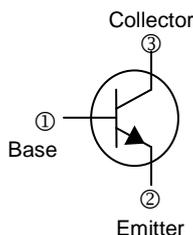
- Epitaxial Planar Die Construction
- Complementary PNP Type Available(MMBT2907FW)
- Ideal for Medium Power Amplification and Switching
- Small Package

MARKING

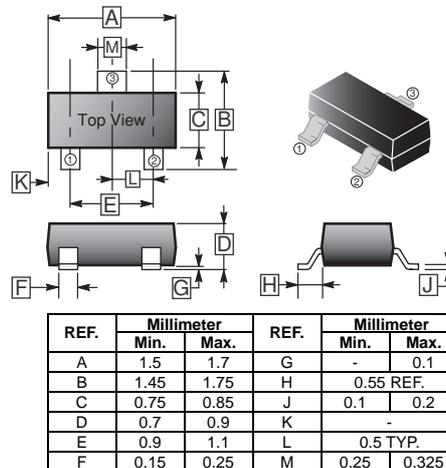
1P

PACKAGE INFORMATION

Package	MPQ	Leader Size
SOT-523	3K	7 inch



SOT-523



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

Parameter	Symbol	Ratings	Unit
Collector-Base Voltage	V _{CBO}	75	V
Collector-Emitter Voltage	V _{CEO}	40	V
Emitter-Base Voltage	V _{EBO}	6	V
Collector Current-Continuous	I _C	600	mA
Collector Power Dissipation	P _C	150	mW
Thermal Resistance from Junction to Ambient	R _{θJA}	833	°C / W
Junction & Storage Temperature	T _J , T _{STG}	-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}	75	-	-	V	I _C =10μA, I _E =0
Collector-Emitter Breakdown Voltage	V _{(BR)CEO}	40	-	-	V	I _C =10mA, I _B =0
Emitter-Base Breakdown Voltage	V _{(BR)EBO}	6	-	-	V	I _E =10μA, I _C =0
Emitter Cut-Off Current	I _{CEX}	-	-	10	nA	V _{CE} =60V, V _{BE(off)} =3V
DC Current Gain	h _{FE}	35	-	-	-	I _C =0.1mA, V _{CE} =10V
		50	-	-		I _C =1mA, V _{CE} =10V
		75	-	-		I _C =10mA, V _{CE} =10V
		100	-	300		I _C =150mA, V _{CE} =10V
		40	-	-		I _C =500mA, V _{CE} =10V
Collector-Emitter Saturation Voltage	V _{CE(sat)}	-	-	0.3	V	I _C =150mA, I _B =15mA
		-	-	1		I _C =500mA, I _B =50mA
Base-Emitter Saturation Voltage	V _{BE(sat)}	-	-	1.2	V	I _C =150mA, I _B =15mA
		-	-	2		I _C =500mA, I _B =50mA
Transition Frequency	f _T	300	-	-	MHz	V _{CE} =20V, I _C =20mA, f=100MHz
Collector Output Capacitance	C _{ob}	-	8	-	pF	V _{CB} =10 V, I _E =0, f=1MHz
Delay Time	T _d	-	10	-	nS	V _{CC} =30V, V _{BE(off)} = -0.5V, I _C =150mA, I _{B1} =15mA
Rise Time	T _r	-	25	-		
Storage Time	T _S	-	225	-	nS	V _{CC} =30V, I _C =150mA, I _{B1} = -I _{B2} =15mA
Fall Time	T _F	-	60	-		

TYPICAL CHARACTERISTIC CURVES

