

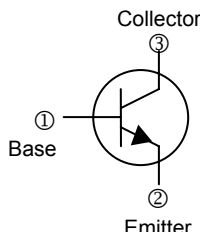
RoHS Compliant Product
A suffix of "-C" specifies halogen & lead-free

FEATURES

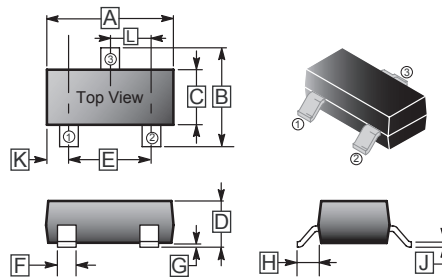
Medium Power Transistor

MARKING

493



SOT-23



REF.	Millimeter		REF.	Millimeter	
	Min.	Max.		Min.	Max.
A	2.80	3.00	G	0.10 REF.	
B	2.25	2.55	H	0.55 REF.	
C	1.20	1.40	J	0.08	0.15
D	0.90	1.15	K	0.5 REF.	
E	1.80	2.00	L	0.95 TYP.	
F	0.30	0.50			

ABSOLUTE MAXIMUM RATINGS (T_A = 25°C unless otherwise noted)

Parameter	Symbol	Ratings	Unit
Collector-Base Voltage	V _{CB0}	120	V
Collector-Emitter Voltage	V _{CEO}	100	V
Emitter-Base Voltage	V _{EBO}	5	V
Collector Current -Continuous	I _C	1	A
Collector Power Dissipation	P _D	250	mW
Junction & Storage temperature	T _J , T _{STG}	150, -55~150	°C

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

Parameter	Symbol	Min.	Max.	Unit	Test Conditions
Collector-base Breakdown Voltage	V _{(BR)CBO}	120	-	V	I _C =100μA, I _E =0
Collector-emitter Breakdown Voltage	V _{(BR)CEO}	100	-	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} =100V, I _E =0
Collector Cut-off Current	I _{CES}	-	0.1	μA	V _{CE} =100V, I _E =0
Emitter Cut-off Current	I _{EBO}	-	0.1	μA	V _{EB} =4V, I _C =0
DC Current Gain	h _{FE(1)}	100	-		V _{CE} =10V, I _C =1mA
	h _{FE(2)}	100	300		V _{CE} =10V, I _C =250mA
	h _{FE(3)}	60	-		V _{CE} =10V, I _C =500mA
	h _{FE(4)}	20	-		V _{CE} =10V, I _C =1000mA
Collector-emitter Saturation Voltage	V _{CE(sat)}	-	0.3	V	I _C =500mA, I _B =50mA
	V _{CE(sat)}	-	0.6	V	I _C =1000mA, I _B =100mA
Base-emitter Saturation Voltage	V _{BE(sat)}	-	1.15	V	I _C =1000mA, I _B =100mA
	V _{BE(on)}	-	1	V	V _{CE} =10V, I _C =1000mA
Transition Frequency	f _T	150	-	MHz	V _{CE} = 10V, I _C = 50mA, f = 100MHz
Output Capacitance	C _{OB}	-	10	pF	V _{CB} = 10V, f = 1.0MHz, I _E = 0

*Pulse test: Pulse width ≤ 300μs, duty cycle ≤ 2%

CHARACTERISTIC CURVES

