Elektronische Bauelemente

2SD2142

NPN Plastic
Plastic-Encapsulate Transistor

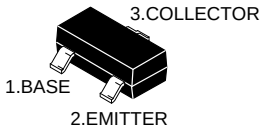
RoHS Compliant Product

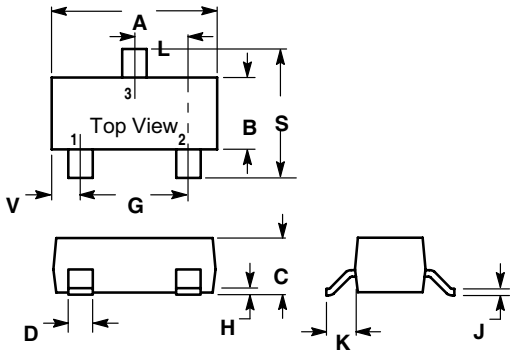
A suffix of "-C" specifies halogen & lead-free

FEATURES

- Darlington connection for a high h_{FE}
- High input impedance

MARKING：R1M





SOT-23		
Dim	**Min**	**Max**
A	2.800	3.040
B	1.200	1.400
C	0.890	1.110
D	0.370	0.500
G	1.780	2.040
H	0.013	0.100
J	0.085	0.177
K	0.450	0.600
L	0.890	1.020
S	2.100	2.500
V	0.450	0.600
All Dimension in mm		

MAXIMUM RATINGS* T_A=25℃ unless otherwise noted

Symbol	Parameter	Value	Units
V_{CBO}	Collector-Base Voltage	40	V
V_{CEO}	Collector-Emitter Voltage	32	V
V_{EBO}	Emitter-Base Voltage	12	V
I_C	Collector Current -Continuous	300	mA
P_C	Collector Dissipation	200	mW
T_J, T_{stg}	Junction and Storage Temperature	-55~150	℃

ELECTRICAL CHARACTERISTICS (Tamb=25℃ unless otherwise specified)

Parameter	Symbol	Test conditions	MIN	TYP	MAX	UNIT
Collector-base breakdown voltage	$V_{(BR)CBO}$	I_C=100μA,I_E=0	40			V
Collector-emitter breakdown voltage	$V_{(BR)CEO}$	I_C=10mA,I_B=0	32			V
Emitter-base breakdown voltage	$V_{(BR)EBO}$	I_E=100μA,I_C=0	12			V
Collector cut-off current	I_{CBO}	V_{CB}=30V,I_E=0			0.1	μA
Emitter cut-off current	I_{EBO}	V_{EB}=12V,I_C=0			0.1	μA
DC current gain	h_{FE}	V_{CE}=3V,I_C=100mA	5000			
Collector-emitter saturation voltage	$V_{CE(sat)}$	I_C=200mA,I_B=0.2mA			1.4	V
Transition frequency	f_T	V_{CE}=5V,I_C=10mA,f=100MHz		200		MHz
Collector output capacitance	C_{ob}	V_{CB}=10V,I_E=0,f=1MHz		2.5		pF

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Typical Characteristics 2SD2142