DMBT9922

PNP SMALL SIGNAL SURFACE MOUNT TRANSISTOR

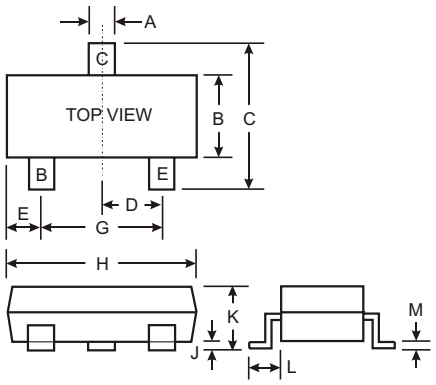
NEW PRODUCT

Features

- Epitaxial Planar Die Construction
- Ideal for Medium Power Amplification and Switching
- High Current Gain
- Complement to DMBT9022

Mechanical Data

- Case: SOT-23, Molded Plastic
- Terminals: Solderable per MIL-STD-202, Method 208
- Terminal Connections: See Diagram
- Marking: K2S
- Weight: 0.008 grams (approx.)



SOT-23		
Dim	**Min**	**Max**
A	0.37	0.51
B	1.19	1.40
C	2.10	2.50
D	0.89	1.05
E	0.45	0.61
G	1.78	2.05
H	2.65	3.05
J	0.013	0.15
K	0.89	1.10
L	0.45	0.61
M	0.076	0.178
All Dimensions in mm		

Maximum Ratings @ T_A = 25°C unless otherwise specified

Characteristic	Symbol	DMBT9922	Unit
Collector-Base Voltage	V_{CBO}	-50	V
Collector-Emitter Voltage	V_{CEO}	-40	V
Emitter-Base Voltage	V_{EBO}	-5.0	V
Collector Current - Continuous (Note 1)	I_C	-100	mA
Power Dissipation (Note 1)	P_d	225	mW
Thermal Resistance, Junction to Ambient (Note 1)	$R_{\theta JA}$	556	K/W
Operating and Storage and Temperature Range	T_j, T_{STG}	-55 to +150	°C

Electrical Characteristics @ T_A = 25°C unless otherwise specified

Characteristic	Symbol	Min	Max	Unit	Test Condition
OFF CHARACTERISTICS (Note 2)					
Collector-Base Breakdown Voltage	$V_{(BR)CBO}$	-50	—	V	$-I_C$ = 50μA, I_E = 0
Collector-Emitter Breakdown Voltage	$V_{(BR)CEO}$	-40	—	V	$-I_C$ = 1.0mA, I_B = 0
Emitter-Base Breakdown Voltage	$V_{(BR)EBO}$	-5.0	—	V	$-I_E$ = 50μA, I_C = 0
Collector Cutoff Current	I_{CBO}	—	-500	nA	V_{CB} = -30V
Emitter Cutoff Current	I_{EBO}	—	-500	nA	V_{EB} = -4.0V
ON CHARACTERISTICS (Note 2)					
DC Current Gain	h_{FE}	300	600	—	I_C = -1.0mA, V_{CE} = -6.0V
Collector-Emitter Saturation Voltage	$V_{CE(SAT)}$	—	-0.5	V	I_C = -50mA, I_B = -5.0mA
SMALL SIGNAL CHARACTERISTICS					
Output Capacitance	C_{obo}	2.0 Typ.	3.5	pF	V_{CB} = -12V, f = 1.0MHz, I_E = 0
Current Gain-Bandwidth Product	f_T	140 Typ.	—	MHz	V_{CE} = -12V, I_C = -2.0mA, f = 100MHz

Notes: 1. Valid provided that terminals are kept at ambient temperature.
2. Pulse test: Pulse width ≤ 300μs, duty cycle ≤ 2%.