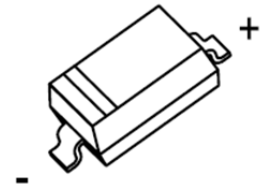
MSV

BAT46W

SCHOTTKY BARRIER DIODE

FEATURES

High breakdown voltage
Low turn-on voltage
Guard ring construction for transient protection



MARKING: S9

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Maximum Ratings @T_a=25℃

Parameter	Symbol	Limit	Unit
Peak repetitive peak reverse voltage **Working peak reverse voltage**	V_{RRM} V_{RWM}	100	V
Forward continuous current	I_F	150	mA
Repetitive peak forward current (Note 1) @ tp < 1.0s, Duty Cycle < 50%	I_{FRM}	350	mA
Non-repetitive Peak Forward surge current @ t = 8.3ms	I_{FSM}	750	mA
Power dissipation	P_D	500	mW
Thermal resistance junction to ambient air	$R_{\theta JA}$	200	℃/W
Junction temperature	T_j	125	℃
Storage temperature	T_{STG}	-55~+150	℃

ELECTRICAL CHARACTERISTICS (Ta=25℃ unless otherwise specified)

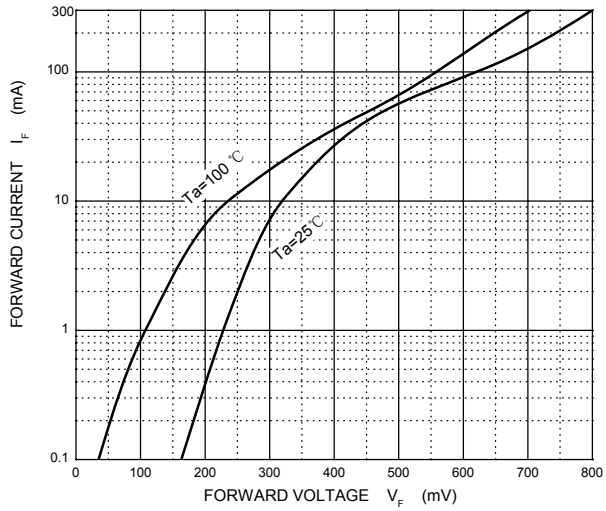
Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Reverse breakdown voltage(Note 2)	V_R	I_R= 100μA	100			V
Reverse voltage leakage current	I_R	V_{R1}=1.5V			0.3	μA
		V_{R2}=10V			0.5	
		V_{R3}=50V			1	
		V_{R4}=75V			2	
Forward voltage(Note 2)	V_F	I_{F1}=0.1mA			0.25	V
		I_{F2}=10mA			0.45	
		I_{F3}=250mA			1	
Diode capacitance	C_T	V_R=0, f=1MHz		20		pF
		V_R=1V, f=1MHz		12		

Notes: 1. Part mounted on FR-4 board with recommended pad layout.

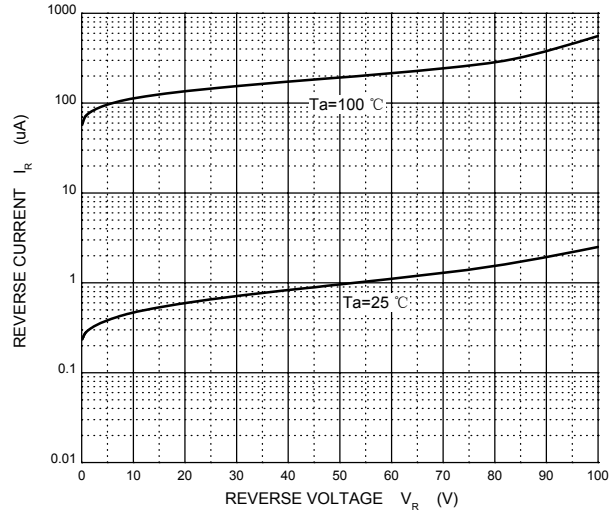
2. Short duration pulse test used to minimize self-heating effect.

Typical Characteristics

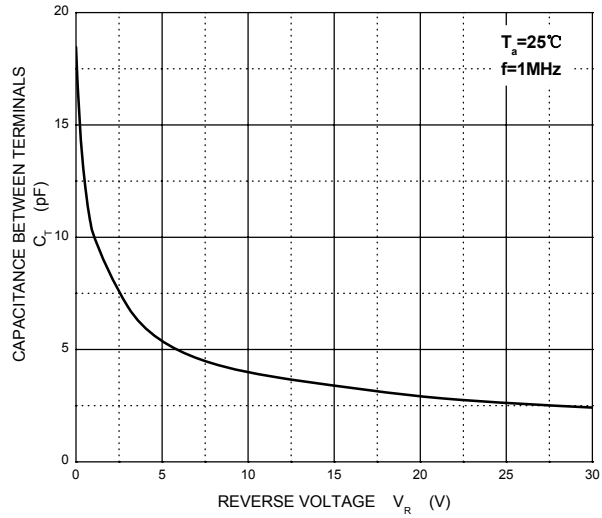
Forward Characteristics



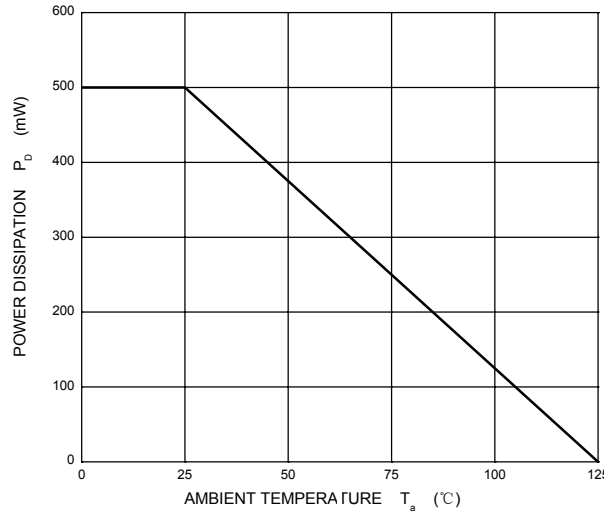
Reverse Characteristics



Capacitance Characteristics



Power Derating Curve



PACKAGE OUTLINE

Plastic surface mounted package; 2 leads

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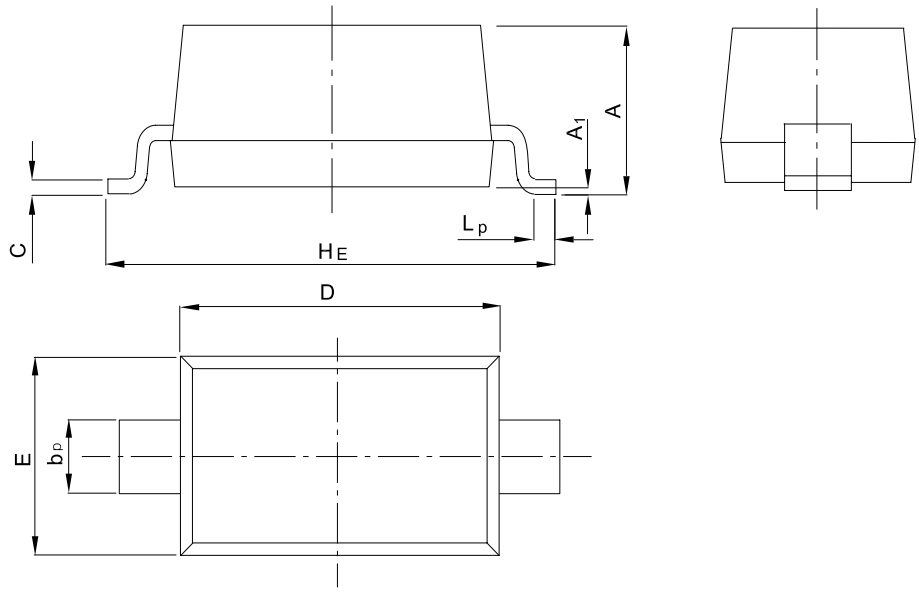

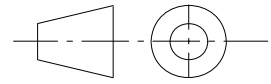

UNIT	A	b_p	C	D	E	H_E	A_1	L_p
mm	1.20 0.90	0.60 0.50	0.135 0.100	2.75 2.55	1.65 1.55	3.85 3.55	0.10 0.01	0.50 0.20