

MS906C3 (20A)

(300V / 20A)

Low loss fast recovery diode

Major characteristics

Characteristics	MS906C3	Units	Condition
V_{RRM}	300	V	
V_F	0.89	V	$T_j=125^{\circ}\text{C}$, typ
I_o	20	A	

Features

- Low V_F
- Low height : 2.8mm
- Small mounting area
- High reverse voltage
- Center tap connection

Applications

- High frequency operation
- DC-DC converters
- AC adapter

Maximum ratings and characteristics

- Absolute maximum ratings

Item	Symbol	Conditions	Rating	Unit
Repetitive peak reverse voltage	V_{RRM}		300	V
Repetitive peak surge reverse voltage	V_{RSM}	$tw=500\text{ns}$, duty=1/40	300	V
Average output current	I_o	Square wave, duty=1/2 $T_c=95^{\circ}\text{C}$	20 *	A
Surge current	I_{FSM}	Sine wave 10ms	80	A
Operating junction temperature	T_j		+150	$^{\circ}\text{C}$
Storage temperature	T_{stg}		-40 to +150	$^{\circ}\text{C}$

* Average output current at centertap full wave connection

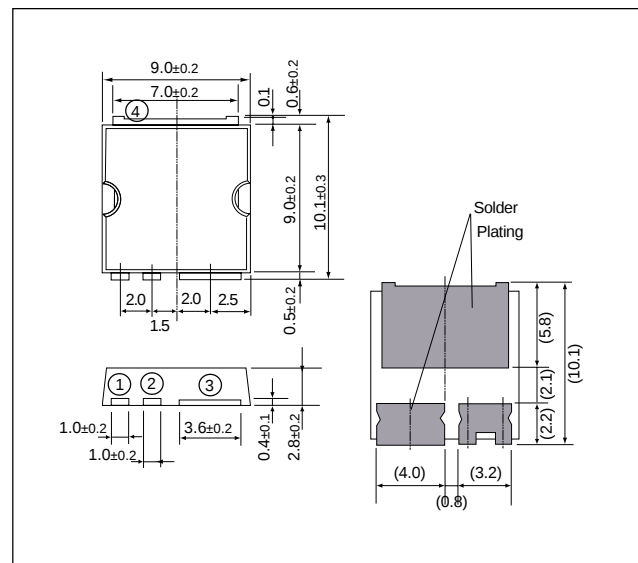
- Electrical characteristics ($T_c=25^{\circ}\text{C}$ Unless otherwise specified)

Item	Symbol	Conditions	Max.	Unit
Forward voltage drop	V_{FM}	$I_{FM}=10\text{A}$	1.2	V
Reverse current	I_{RRM}	$V_R=V_{RRM}$	200	μA
Reverse recovery time	t_{rr}	$I_F=0.1\text{A}$, $I_R=0.2\text{A}$, $I_{rec}=0.05\text{A}$	35	ns

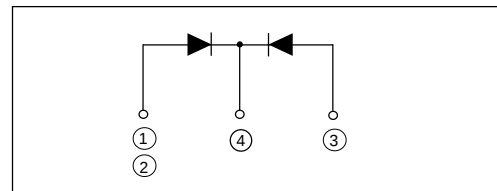
- Electrical characteristics ($T_c=25^{\circ}\text{C}$ Unless otherwise specified)

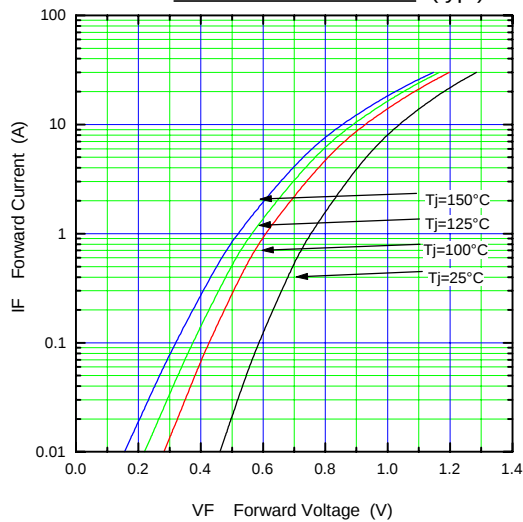
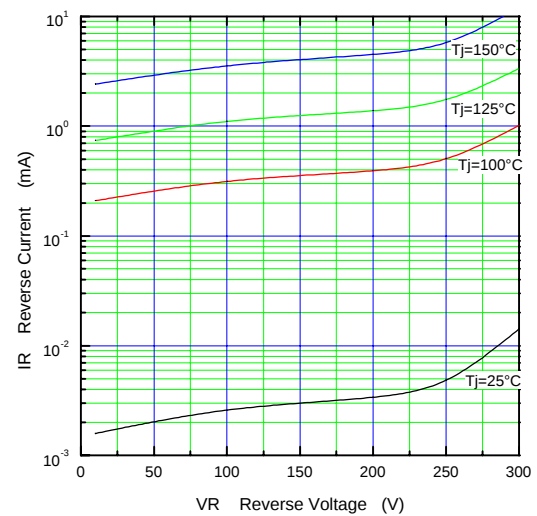
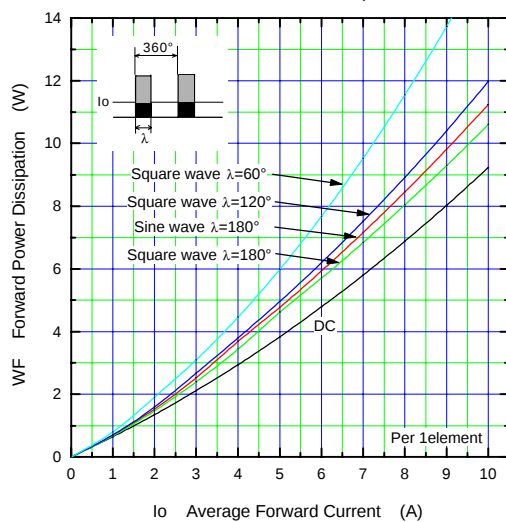
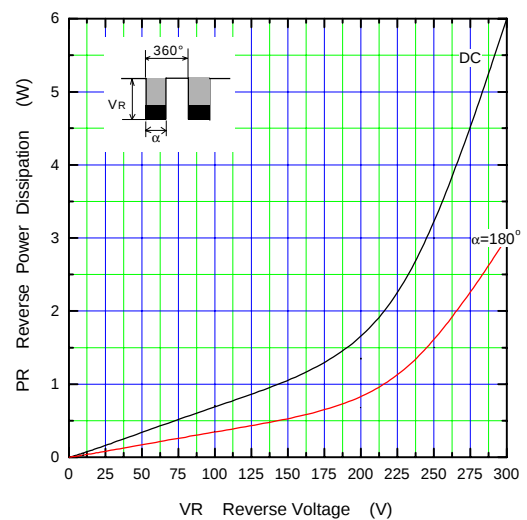
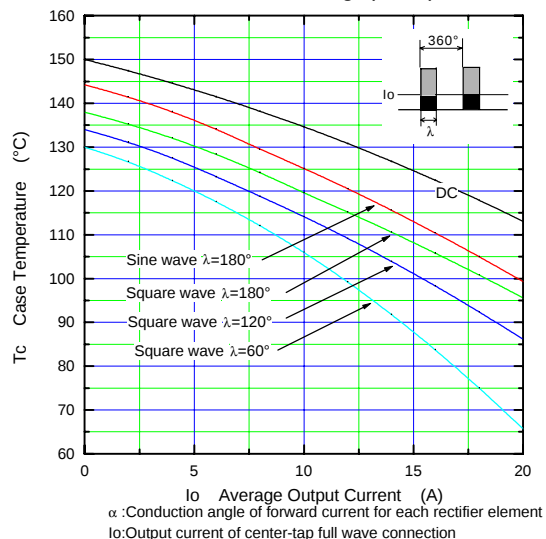
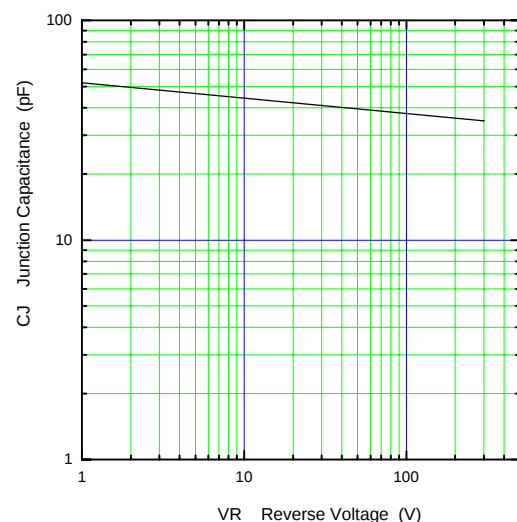
Item	Symbol	Condition	Max.	Unit
Thermal resistance	$R_{th(j-c)}$	Junction to case	2	$^{\circ}\text{C/W}$

Outline drawings, mm

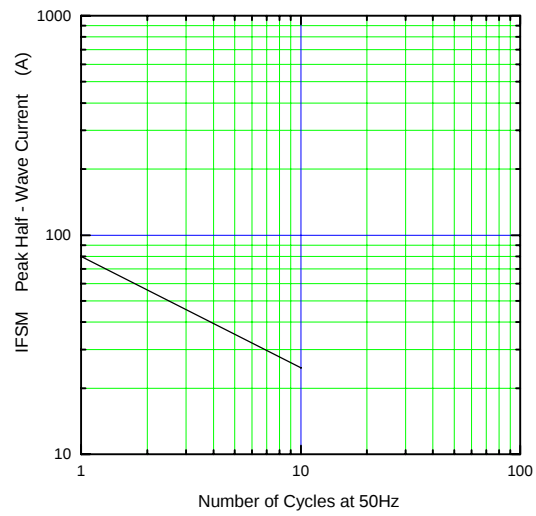


Connection diagram



■ Characteristics**Forward Characteristic (typ.)****Reverse Characteristic (typ.)****Forward Power Dissipation****Reverse Power Dissipation****Current Derating (I_o - T_c)****Junction Capacitance Characteristic (typ.)**

Surge Capability



Transient Thermal Impedance

