

MA691

Silicon Planar Type

Switching

■ Features

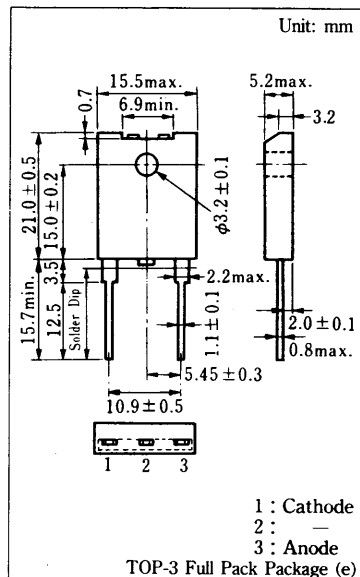
- High V_R
- Low V_F
- Fast t_{rr}

■ Absolute Maximum Ratings ($T_a=25^\circ\text{C}$)

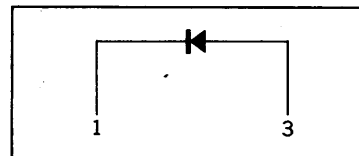
Item	Symbol	Value	Unit
Repetitive Peak Reverse Voltage	V_{RRM}	200	V
Non-Repetitive Peak Reverse Voltage	V_{RSM}	200	V
Average Forward Current	$I_{F(AV)}$	10	A
Non-Repetitive Peak Forward Surge Current	I_{FSM}^*	70	A
Junction temperature	T_j	-40 ~ +150	$^\circ\text{C}$
Storage Temperature	T_{stg}	-40 ~ +150	$^\circ\text{C}$

*Sine half wave: 10ms/1 ~

■ Package Dimensions



■ Inner Circuit

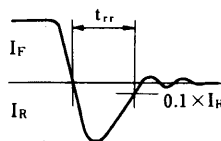
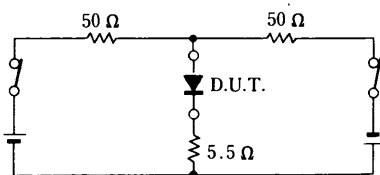


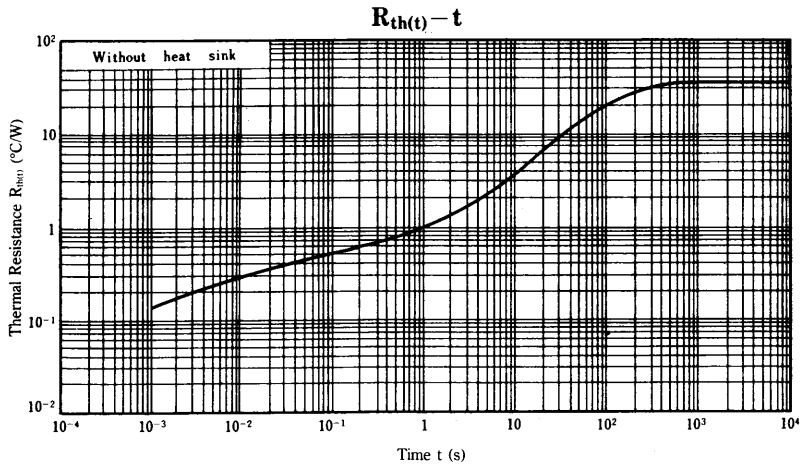
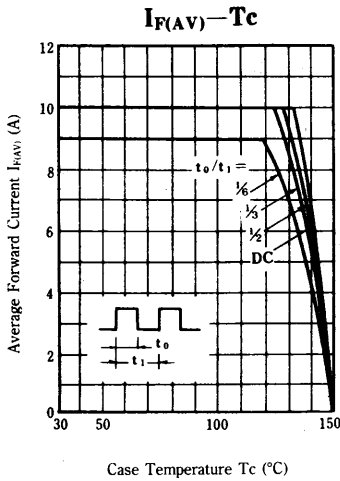
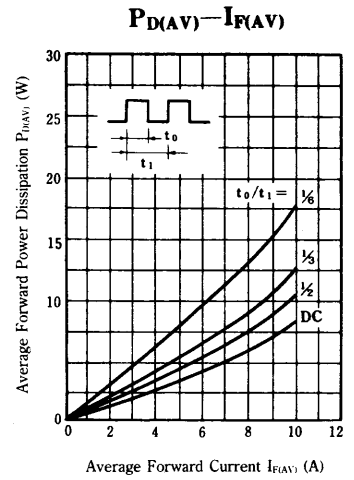
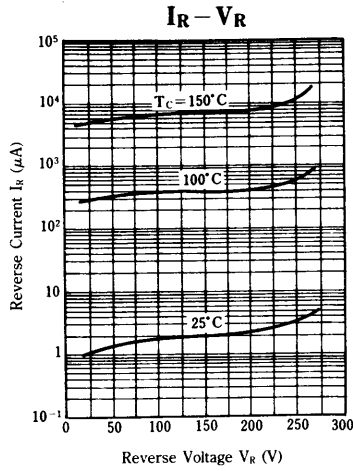
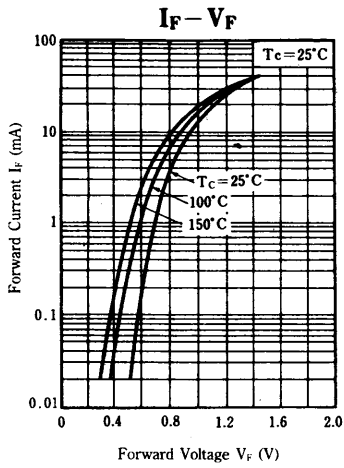
■ Electrical Characteristics ($T_a=25^\circ\text{C}$)

Item	Symbol	Condition	min.	typ.	max.	Unit
Forward Voltage (DC)	V_F	$I_F=10\text{ A}$, $T_c=25^\circ\text{C}$			1	V
Repetitive Peak Reverse Current	I_{RRM1}	$V_{RRM}=200\text{ V}$, $T_c=25^\circ\text{C}$			100	μA
	I_{RRM2}	$V_{RRM}=200\text{ V}$, $T_j=150^\circ\text{C}$			10	mA
Reverse Recovery Time	t_{rr}^*	$I_F=1\text{ A}$, $I_R=1\text{ A}$			100	ns
Thermal Resistance	$R_{th(j-c)}$	Smoothing (CD) between junction and case			2	$^\circ\text{C}/\text{W}$
	$R_{th(j-a)}$				40	$^\circ\text{C}/\text{W}$

© Input and output frequency of ratings: 10MHz

* t_{rr} measuring circuit





MA79

Silicon Epitaxial Planar Type

Band Switching

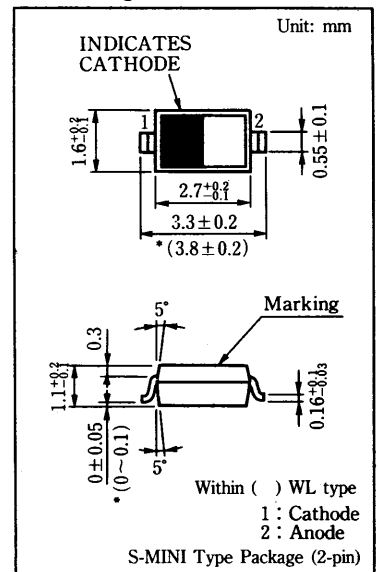
■ Features

- Low r_f
- Diode capacitance has small voltage dependence.
- As it is a Mini type package, downsizing of equipment and automatic insertion by taping packaging are possible.

■ Absolute Maximum Ratings ($T_a=25^\circ\text{C}$)

Item	Symbol	Value	Unit
Reverse Voltage (DC)	V_R	25	V
Forward Current (DC)	I_F	100	mA
Operating Ambient Temperature	T_{opr}	-25 ~ + 85	$^\circ\text{C}$
Storage Temperature	T_{stg}	-55 ~ +150	$^\circ\text{C}$

■ Package Dimensions



Marking Symbol : 4C

■ Electrical Characteristics ($T_a=25^\circ\text{C}$)

Item	Symbol	Condition	min.	typ.	max.	Unit
Reverse Current (DC)	I_R	$V_R=23\text{V}$	0.01		100	nA
Forward Voltage (DC)	V_F	$I_F=100\text{mA}$	0.92		1.0	V
Diode Capacitance	C_D	$V_R=6\text{V}$, $f=1\text{MHz}$	1.2		1.5	pF
Forward Dynamic Resistance	r_f	$I_F=2\text{mA}$, $f=100\text{MHz}$	0.45		0.6	Ω

© Input and output frequency of ratings: 100MHz

MA80WA, MA80WK (Preliminary)

Silicon Epitaxial Planar Type

Electronic Tuner · Band Switching

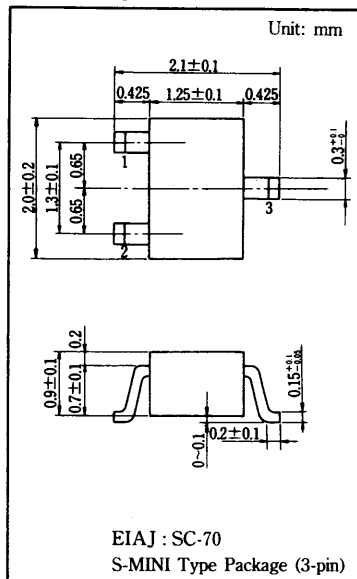
■ Features

- Two elements in S-Mini package (3-pin) down size an equipment
- Low r_f
- Diode capacitance has small voltage dependence.

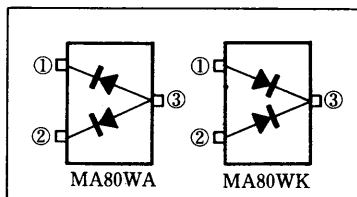
■ Absolute Maximum Ratings ($T_a=25^\circ\text{C}$)

Item	Symbol	Value	Unit
Reverse Voltage (DC)	V_R	35	V
Forward Current (DC)	I_F	100	mA
Operating Ambient Temperature	T_{opr}	-25 ~ +85	$^\circ\text{C}$
Storage Temperature	T_{stg}	-55 ~ +150	$^\circ\text{C}$

■ Package Dimensions



■ Inner Circuit

■ Electrical Characteristics ($T_a=25^\circ\text{C}$)

Item	Symbol	Condition	min.	typ.	max.	Unit
Reverse Current (DC)	I_R	$V_R=33\text{V}$		0.01	100	nA
Forward Voltage (DC)	V_F	$I_F=100\text{mA}$		0.92	1	V
Diode Capacitance	C_D	$V_R=6\text{V}, f=1\text{MHz}$		0.9	1.2	pF
Forward Dynamic Resistance	r_f^*	$I_F=2\text{mA}, f=100\text{MHz}$		0.65	0.85	Ω

© Input and output frequency of ratings: 100MHz

© Characteristics are specifications to each diodes

*Measuring apparatus: YHP model 4191A RF impedance analyzer

■ Marking Symbol



MA80WA



MA80WK