

# MA141A, MA142A

Silicon Epitaxial Planar Type

Switching

### ■ Features

- High density mounting by "S-Mini type" package is possible.

### ■ Absolute Maximum Ratings (Ta=25°C)

Item	Symbol	Value	Unit
Reverse Voltage (DC)	MA141A	40	V
	MA142A	80	
Peak Reverse Voltage	MA141A	40	V
	MA142A	80	
Forward Current (DC)	I <sub>F</sub>	100	mA
Peak Forward Current	I <sub>FM</sub>	225	mA
Non-Repetitive Peak Forward Surge Current	I <sub>FSM</sub> *	500	mA
Junction Temperature	T <sub>j</sub>	150	°C
Storage Temperature	T <sub>stg</sub>	-55~+150	°C

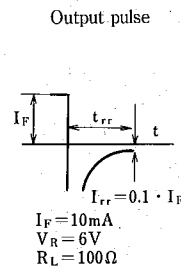
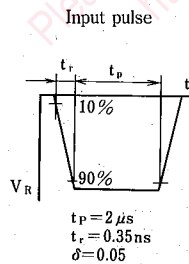
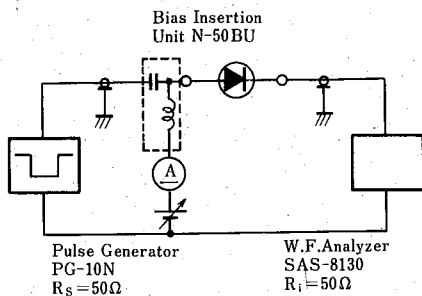
\*t=1s

### ■ Electrical Characteristics (Ta=25°C)

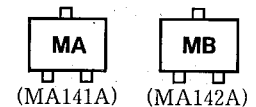
Item	Symbol	Condition	min.	typ.	max.	Unit
Reverse Current (DC)	MA141A	V <sub>R</sub> =35V			100	nA
	MA142A	V <sub>R</sub> =75V			100	
Forward Voltage (DC)	V <sub>F</sub>	I <sub>F</sub> =100mA			1.2	V
Reverse Voltage (DC)	MA141A	I <sub>R</sub> =100μA	40			V
	MA142A		80			
Terminal Capacitance	C <sub>t</sub>	V <sub>R</sub> =0, f=1MHz			15	pF
Reverse Recovery Time	t <sub>rr</sub> *	I <sub>F</sub> =10mA, V <sub>R</sub> =6V I <sub>rr</sub> =0.1·I <sub>R</sub> , R <sub>L</sub> =100Ω			10	ns

© Input and output frequency of ratings: 100MHz

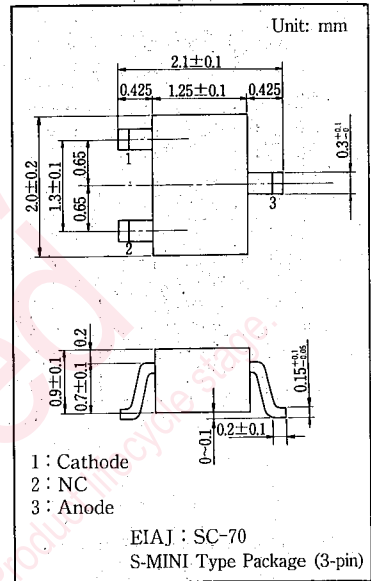
\*t<sub>rr</sub> measuring circuit



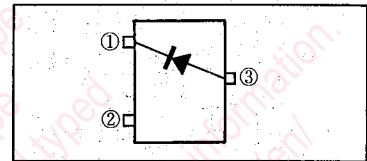
### ■ Marking Symbol



### ■ Package Dimensions

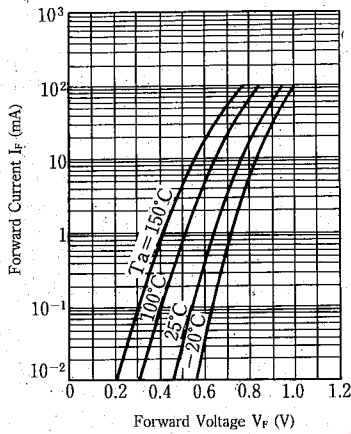


### ■ Inner Circuit

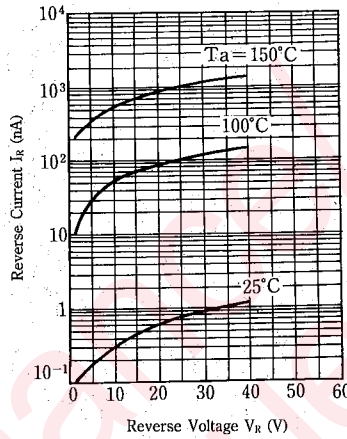


## MA141A Characteristics

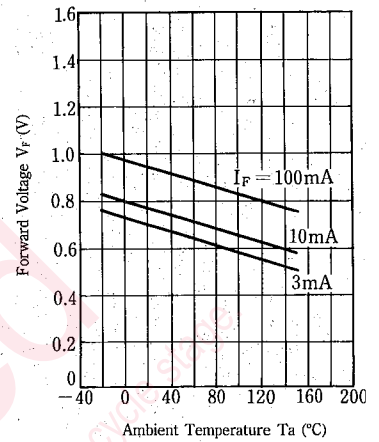
### $I_F - V_F$



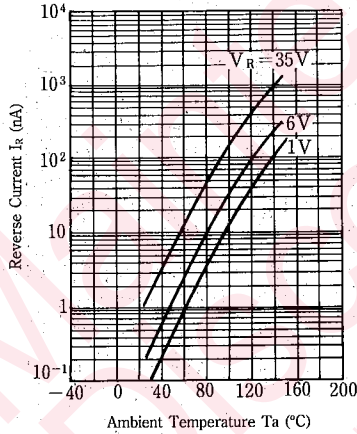
### $I_R - V_R$



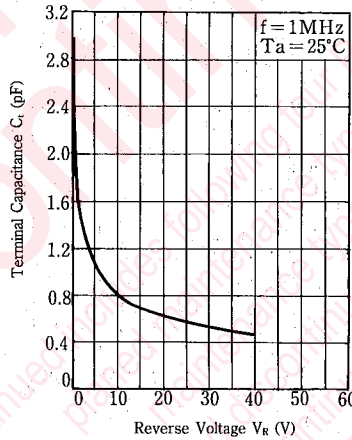
### $V_F - T_a$



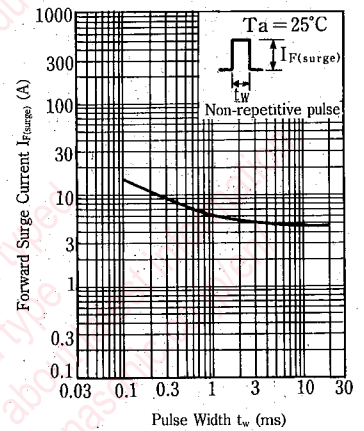
### $I_R - T_a$



### $C_t - V_R$

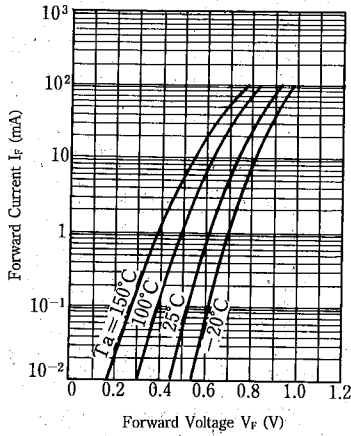


### $I_{F(surge)} - t_w$

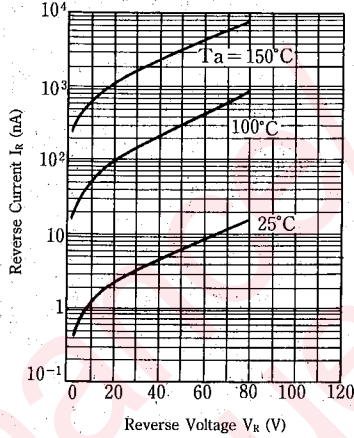


MA142A Characteristics

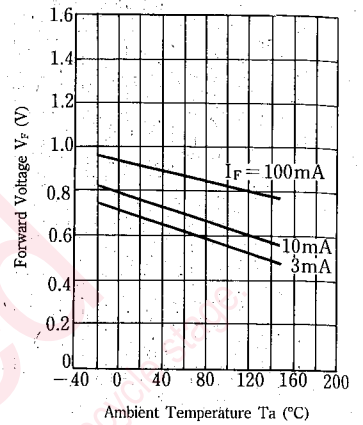
$I_F - V_F$



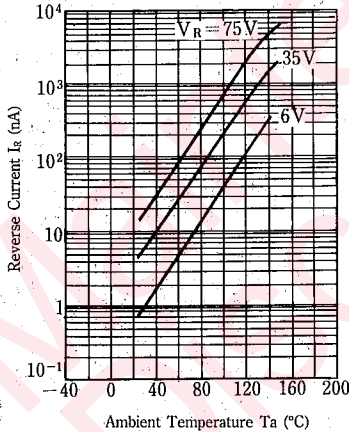
$I_R - V_R$



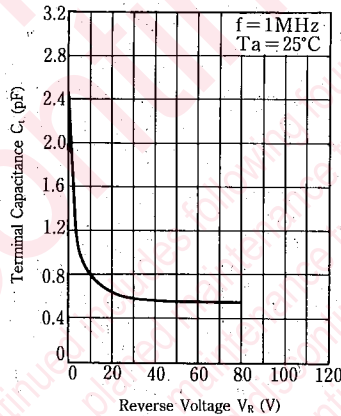
$V_F - T_a$



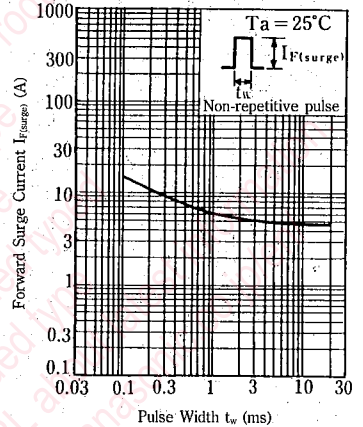
$I_R - T_a$



$C_t - V_R$



$I_{F(surge)} - t_w$



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