

MA3DF30

Silicon Mesa type

For high frequency rectification

For plasma display panel drive

■ Features

- High switching speed t_{rr}
- Soft recovery

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

Parameter	Symbol	Rating	Unit
Repetitive peak reverse voltage	V_{RRM}	300	V
Non-repetitive peak reverse surge voltage	V_{RSM}	350	V
Forward current $T_C = 25^\circ\text{C}$	I_F	20	A
Non-repetitive peak forward surge current *	I_{FSM}	100	A
Junction temperature	T_j	-40 to +150	$^\circ\text{C}$
Storage temperature	T_{stg}	-40 to +150	$^\circ\text{C}$

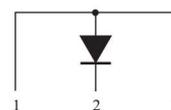
Note) *: 50 Hz sine wave 1 cycle (Non-repetitive peak current)

■ Package

- Code TO-220D-A1
- Pin Name
 - 1: Anode
 - 2: Cathode
 - 3: Anode

■ Marking Symbol: MA3DF30

■ Internal Connection



■ Electrical Characteristics $T_a = 25^\circ\text{C} \pm 3^\circ\text{C}$

Parameter	Symbol	Conditions	Min	Typ	Max	Unit
Forward voltage	V_F	$I_F = 20 \text{ mA}$		1.3	1.4	V
Reverse current	I_{RRM}	$V_{RRM} = 300 \text{ V}$			50	μA
Reverse recovery time *	t_{rr}	$I_F = 0.5 \text{ A}, I_R = 1.0 \text{ A}$ $I_{rr} = 0.25 \text{ A}$		15	25	ns
Thermal resistance (j-a)	$R_{th(j-c)}$				3.0	$^\circ\text{C/W}$
Thermal resistance (j-c)	$R_{th(j-a)}$				63	$^\circ\text{C/W}$

Note) 1. Measuring methods are based on JAPANESE INDUSTRIAL STANDARD JIS C 7031 measuring methods for diodes.

2. Absolute frequency of input and output is 10 MHz.

3. *: t_{rr} measurement circuit

