

# YA878C15R (150V, 30A)

FUJI Diode

## Ultra Low IR Schottky Barrier Diode

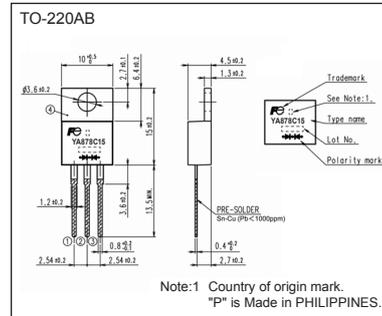
### ■ Features

- Ultra Low IR
- Low  $V_F$
- $T_j$  MAX = 175°C
- High reliability at higher temperatures

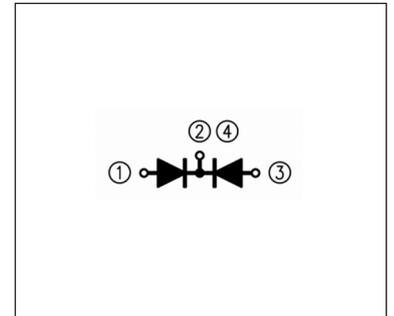
### ■ Applications

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

### ■ Outline Drawings [mm]



### ■ Connection diagram



### ■ Maximum Ratings and Characteristics

#### ● Maximum ratings (at $T_a=25^\circ\text{C}$ Unless otherwise specified)

Item	Symbols	Conditions	Ratings	Units
Repetitive peak reverse voltage	$V_{RRM}$		150	V
Average output current	$I_o$	50Hz Square wave duty =1/2 $T_c = 140^\circ\text{C}$	30 *	A
Non-repetitive surge current **	$I_{FSM}$	Sine wave, 10ms 1shot	160	A
Operating junction temperature	$T_j$		175	°C
Storage temperature	$T_{stg}$		-40 to +175	°C

\*Out put current of center tap full wave connection.

\*\*Rating per element

#### ● Electrical characteristics (at $T_a=25^\circ\text{C}$ Unless otherwise specified)

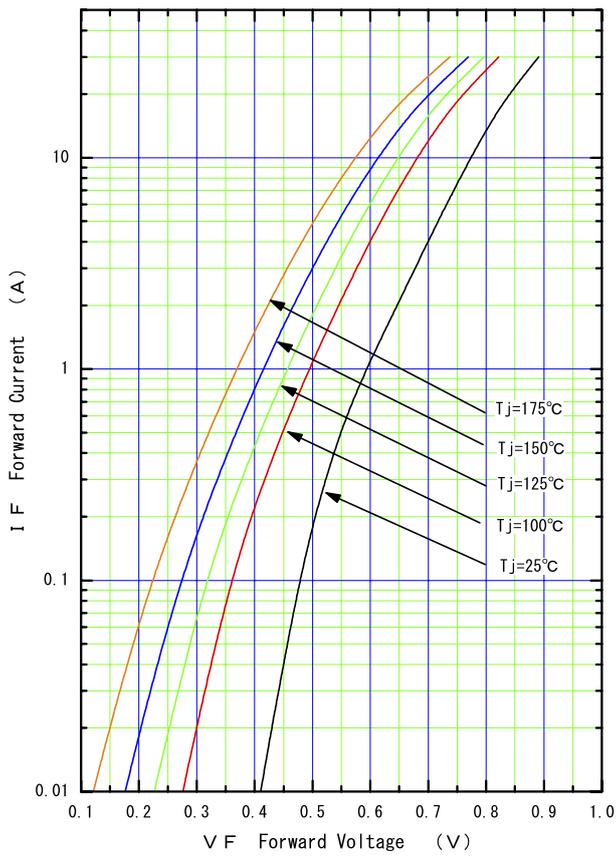
Item	Symbols	Conditions	Maximum	Units
Forward voltage***	$V_F$	$I_F = 15\text{ A}$	0.89	V
Reverse current***	$I_R$	$V_R = V_{RRM}$	30	$\mu\text{A}$
Thermal resistance	$R_{th(j-c)}$	Junction to case	1.25	°C/W

\*\*\*Rating per element

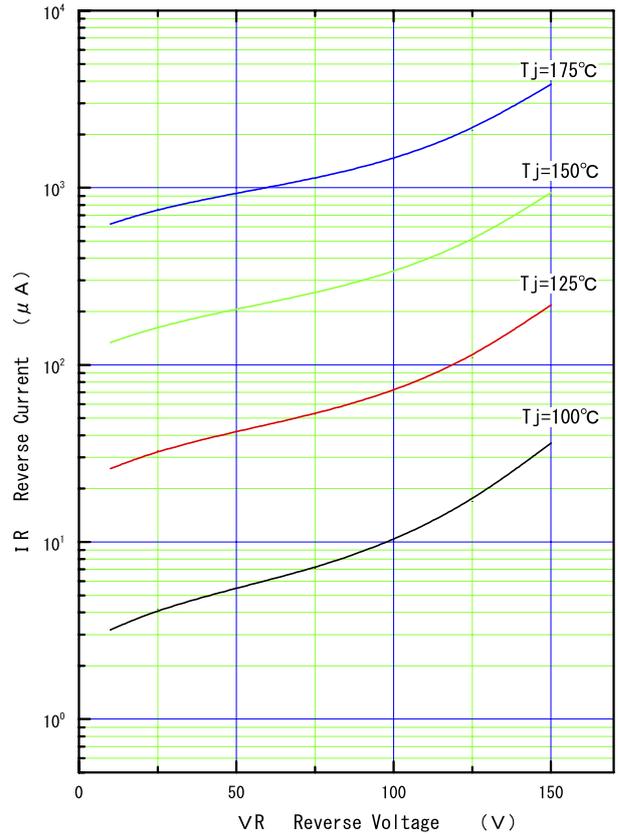
#### ● Mechanical characteristics

Item	Conditions	Ratings	Units
Mounting torque	Recommended torque	0.3 to 0.5	N•m
Approximate mass		2.0	g

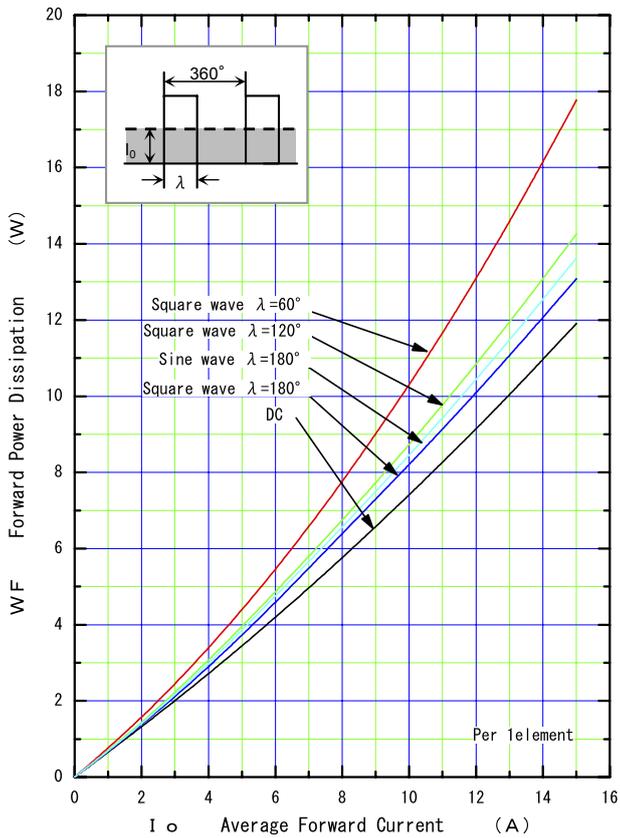
Forward Characteristic (typ.)



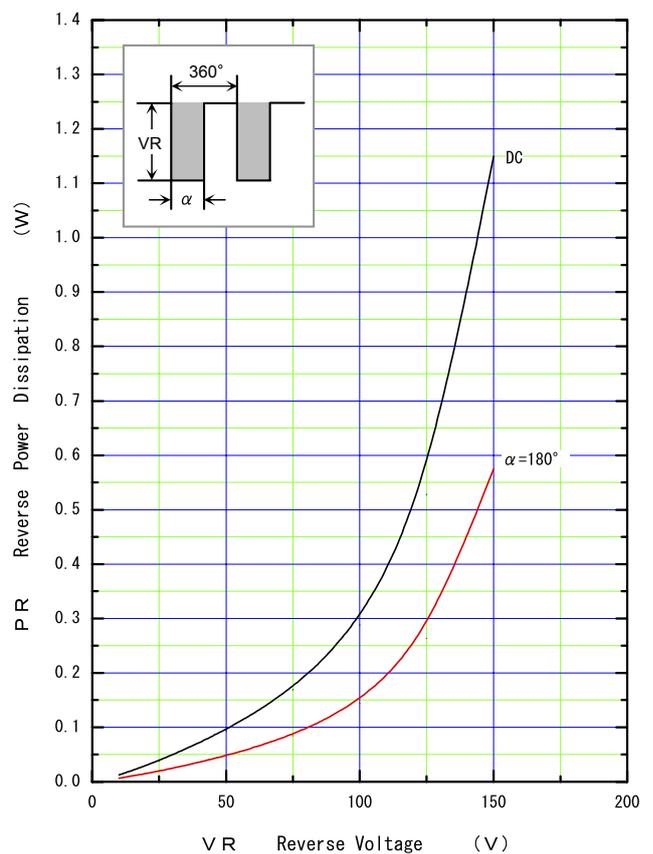
Reverse Characteristic (typ.)



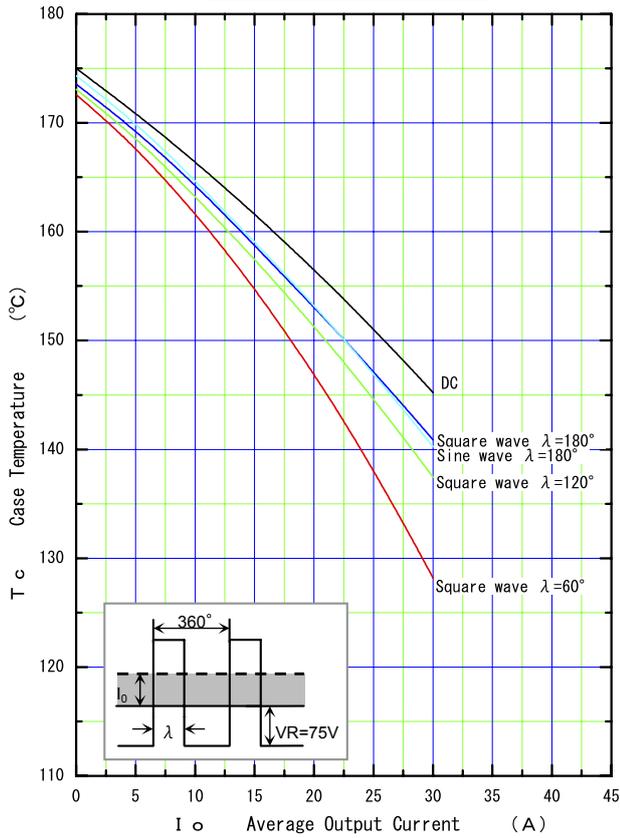
Forward Power Dissipation (max.)



Reverse Power Dissipation (max.)

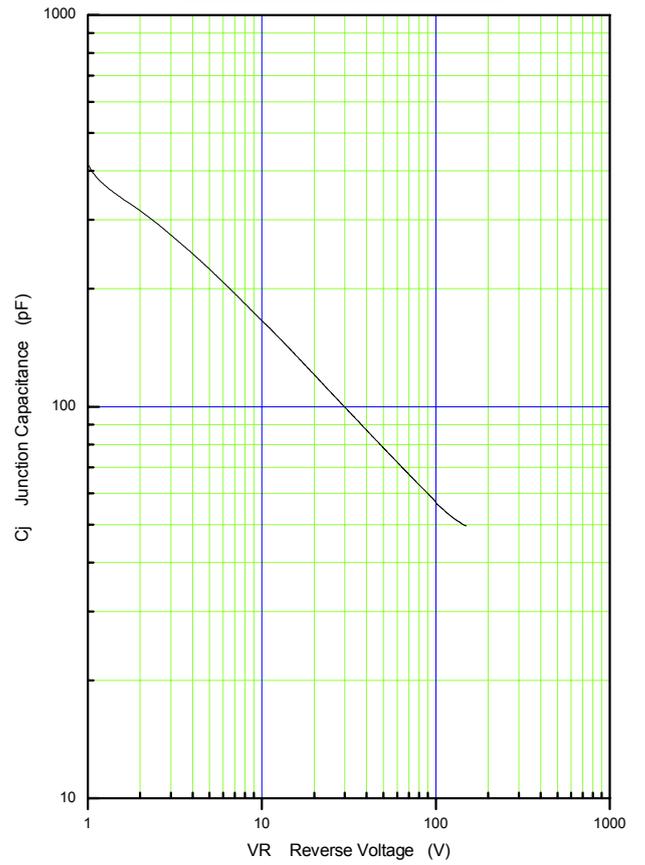


Current Derating ( $I_o-T_c$ ) (max.)

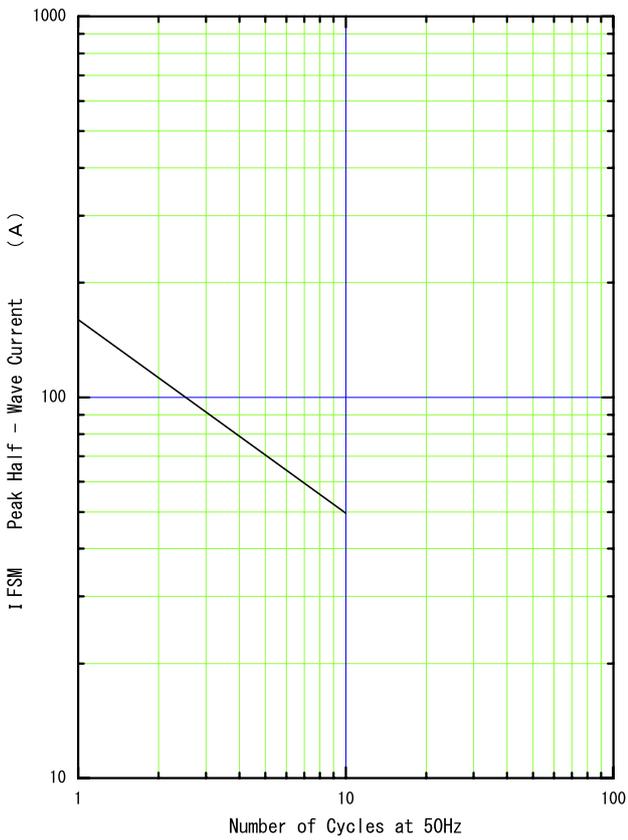


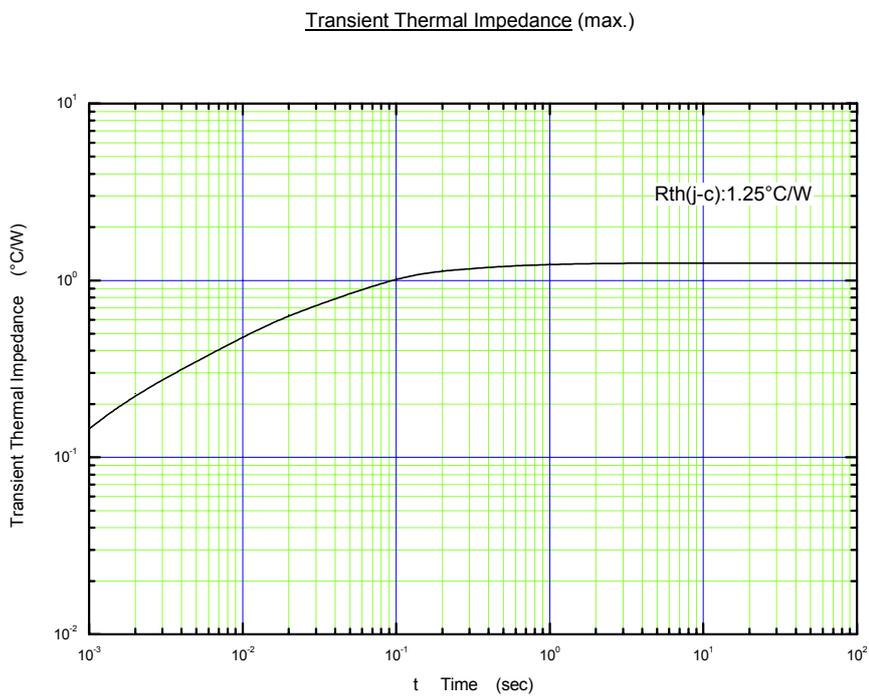
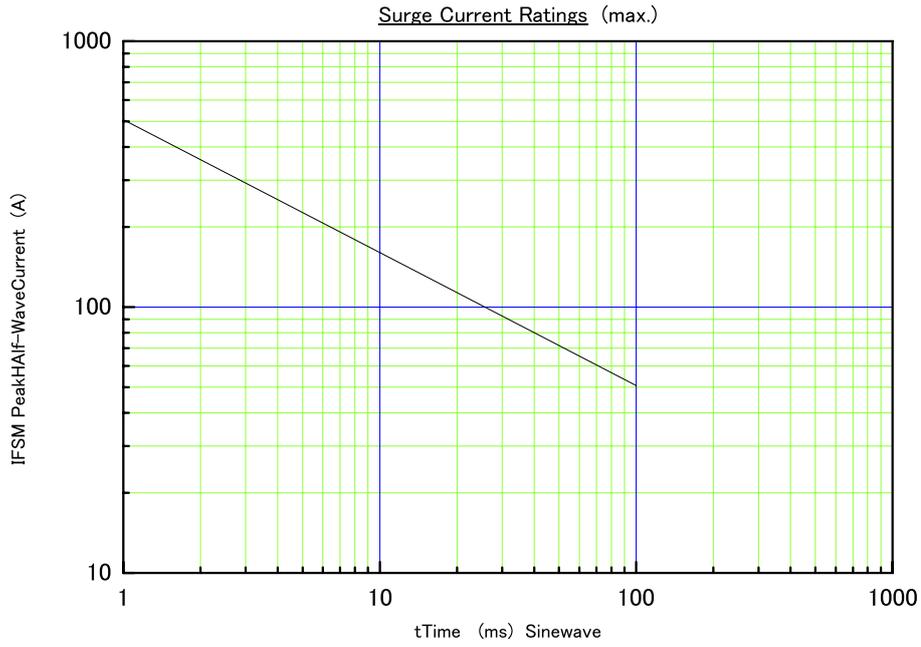
$\lambda$ : Conduction angle of forward current for each rectifier element  
 $I_o$ : Output current of center-tap full wave connection

Junction Capacitance Characteristic (max.)



Surge Capability (max.)





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  - Machine tools
  - Audiovisual equipment
  - Electrical home appliances
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