# YA868C12R (30A)

**(120V / 30A )**

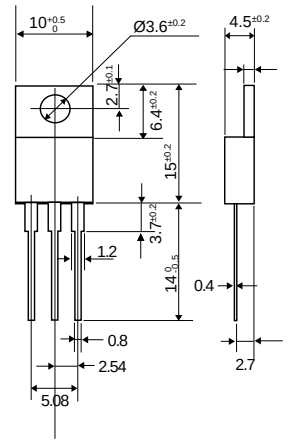
[0401]

## High Voltage Schottky barrier diode

## ■ Major characteristics

| Characteristics | YA868C12R | Units | Condition |
|---|---|---|---|
| $V_{RRM}$ | 120 | V | |
| $V_F$ | 0.88 | V | Tc=25°C MAX. |
| $I_O$ | 30 | A | |

## ■ Outline drawings, mm




Package : TO-220
Epoxy resin UL : V-0

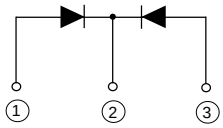
## ■ Features

- Low $V_F$
- High Voltage
- Center tap connection

## ■ Applications

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

## ■ Connection diagram




## ■ Maximum ratings and characteristics

● Absolute maximum ratings (at Tc=25°C Unless otherwise specified )

| Item | Symbol | Conditions | Rating | Unit |
|---|---|---|---|---|
| Repetitive peak surge reverse voltage | $V_{RSM}$ | tw=500ns, duty=1/40 | 120 | V |
| Repetitive peak reverse voltage | $V_{RRM}$ | | 120 | V |
| Average output current | Io | Square wave, duty=1/2 Tc=122°C | 30 * | A |
| Non-repetitive surge current ** | $I_{FSM}$ | Sine wave 10ms 1shot | 225 | A |
| Operating junction temperature | $T_j$ | | +150 | °C |
| Storage temperature | $T_{stg}$ | | -40 to +150 | °C |

* Out put current of center tap full wave connection
**Rating per element

● Electrical characteristics (at Tc=25°C Unless otherwise specified )

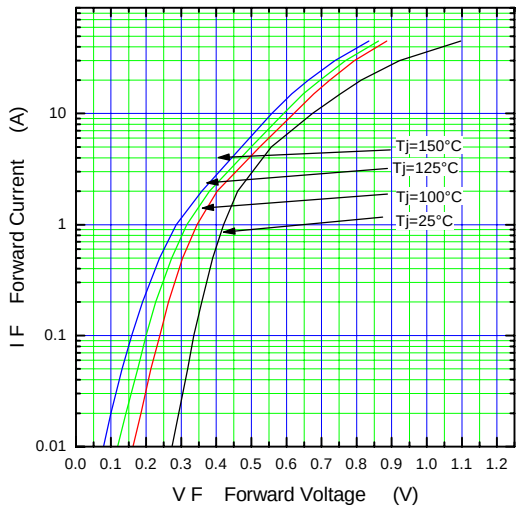
| Item | Symbol | Conditions | Max. | Unit |
|---|---|---|---|---|
| Forward voltage drop | $V_F$ | $I_{FM}$=15A | 0.88 | V |
| Reverse current | $I_R$ | $V_R=V_{RRM}$ | 200 | μA |
| Thermal resistance | Rth(j-c) | Junction to case | 1.0 | °C/W |

● Mechanical characteristics

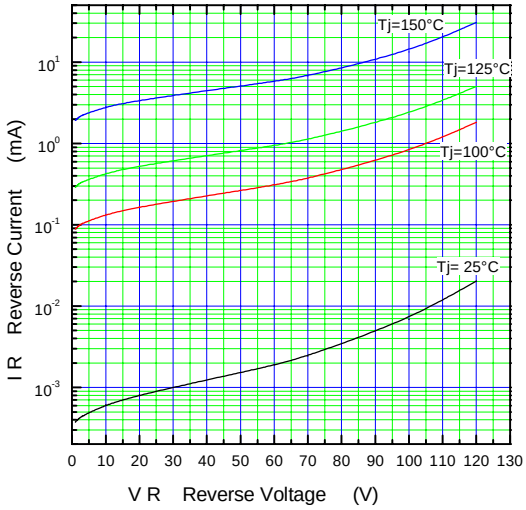
| | | | |
|---|---|---|---|
| Mounting torque | Recommended torque | 0.3 to 0.5 | N·m |
| Approximate mass | | 2 | g |

## ■ Characteristics

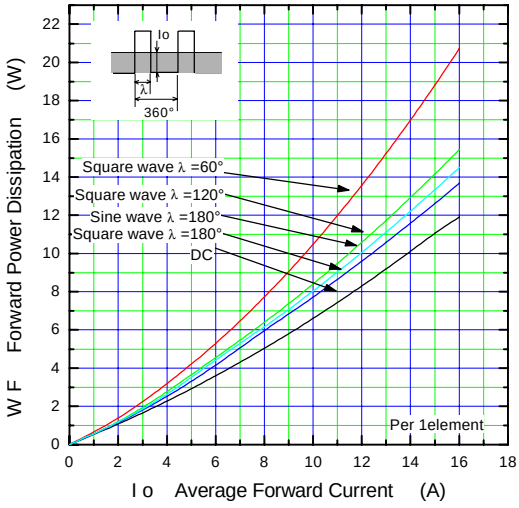
Forward Characteristic (typ.)



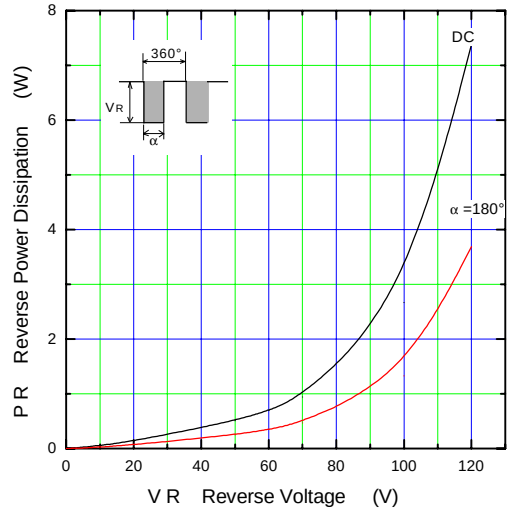

Reverse Characteristic (typ.)



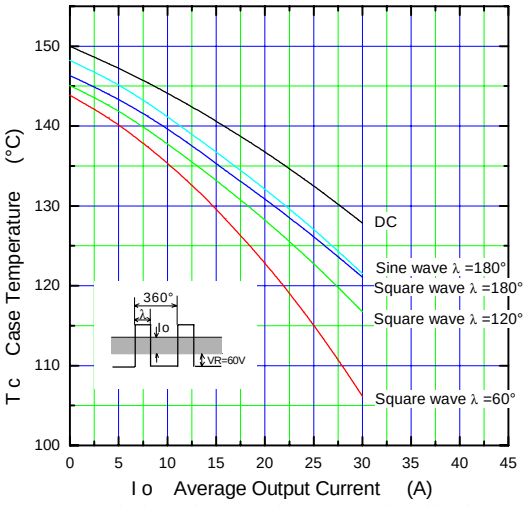

Forward Power Dissipation (max.)




Reverse Power Dissipation (max.)

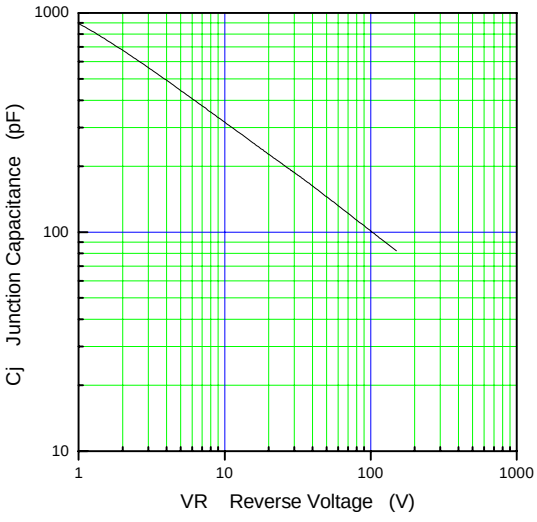



Current Derating (Io-Tc) (max.)

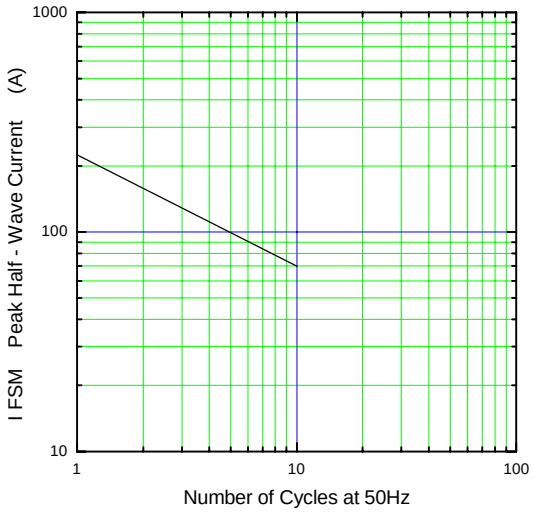



λ :Conduction angle of forward current for each rectifier element
Io:Output current of center-tap full wave connection

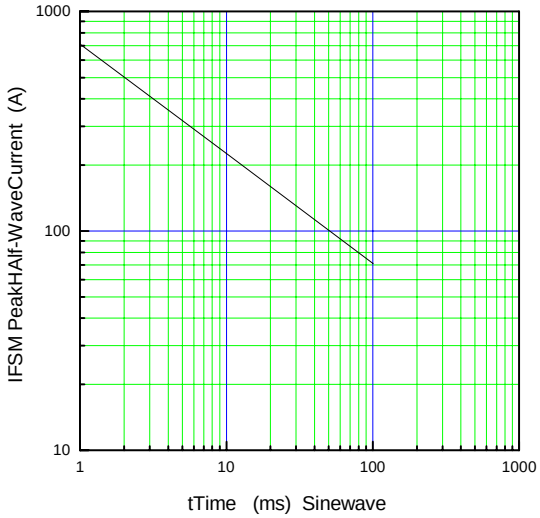
Junction Capacitance Characteristic (max.)



Surge Capability (max.)




Surge Current Ratings (max.)




Transient Thermal Impedance (max.)

