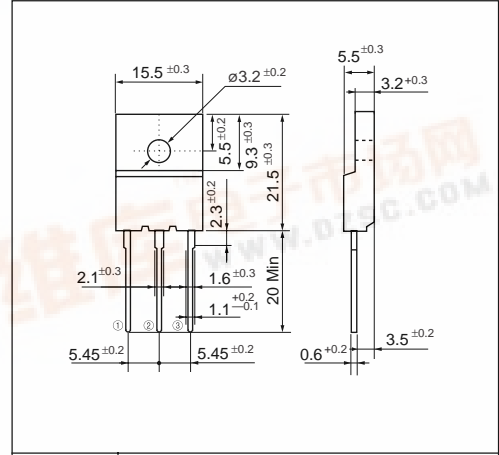


# ESAD92M-03 (20A)

( 300V / 20A )

## LOW LOSS SUPER HIGH SPEED RECTIFIER

## Outline drawings, mm



JEDEC	—
EIAJ	—

## Features

- Insulated package by fully molding
- Low VF
- Super high speed switching
- High reliability by planer design

## Applications

- High speed power switching

## Maximum ratings and characteristics

- Absolute maximum ratings

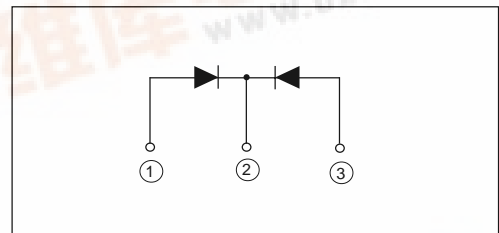
Item	Symbol	Conditions	Rating	Unit
Repetitive peak reverse voltage	$V_{RRM}$		300	V
Non-Repetitive peak reverse voltage	$V_{RSM}$		300	V
Isolating voltage	$V_{iso}$	Terminals-to-case, AC, 1 min.	1500	V
Average output current	$I_o$	Square wave, duty=1/2, $T_c=96^{\circ}C$	20*	A
Surge current	$I_{FSM}$	Sine wave 10ms	80	A
Operating junction temperature	$T_j$		-40 to +150	$^{\circ}C$
Storage temperature	$T_{stg}$		-40 to +150	$^{\circ}C$

\*Average forward current of centertap full wave connection

- Electrical characteristics ( $T_a=25^{\circ}C$  Unless otherwise specified)

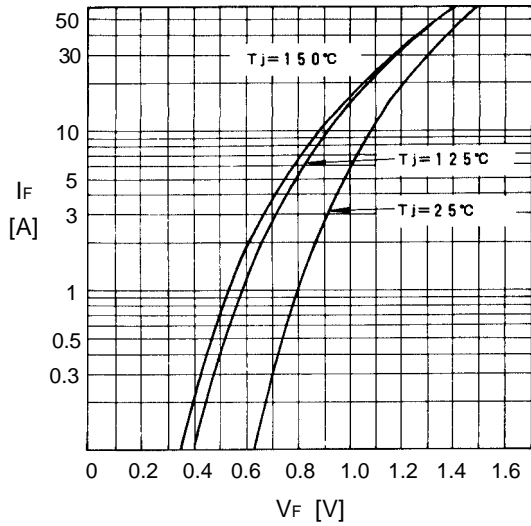
Item	Symbol	Conditions	Max.	Unit
Forward voltage drop	$V_{FM}$	$I_{FM}=10A$	1.2	V
Reverse current	$I_{RRM}$	$V_R=V_{RRM}$	200	$\mu A$
Reverse recovery time	$t_{rr}$	$I_F=0.1A, I_R=0.2A, I_{rec}=0.05A$	40	ns

## Connection diagram

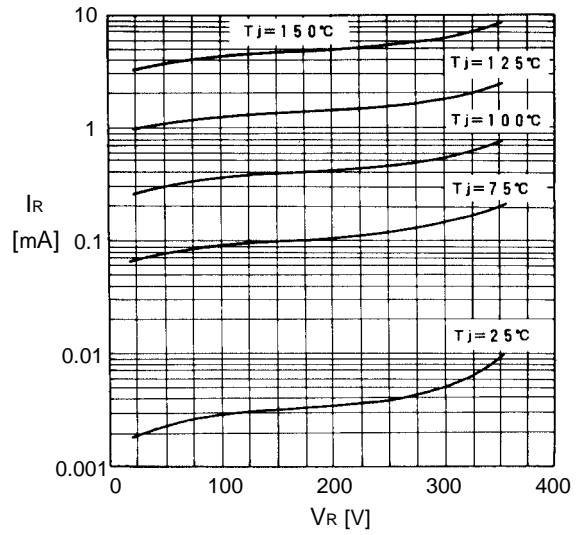


■ Characteristics

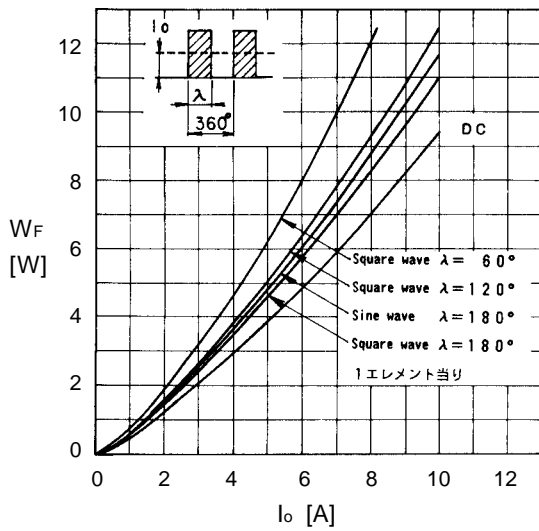
Forward characteristics



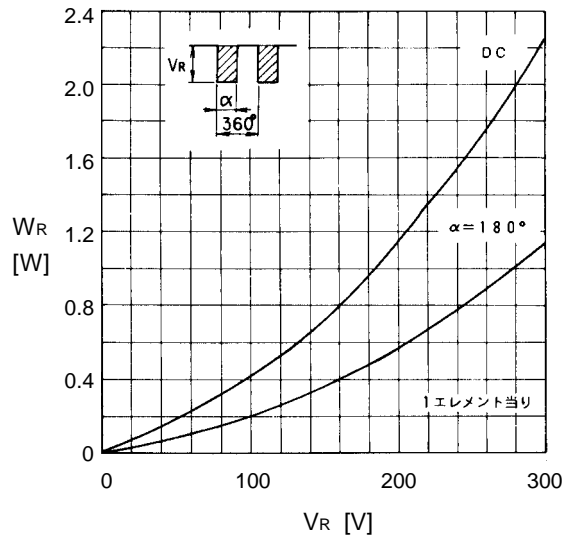
Reverse characteristics



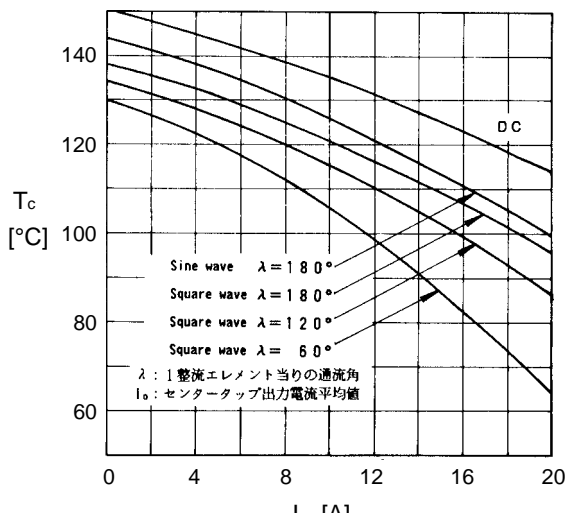
Forward power dissipation



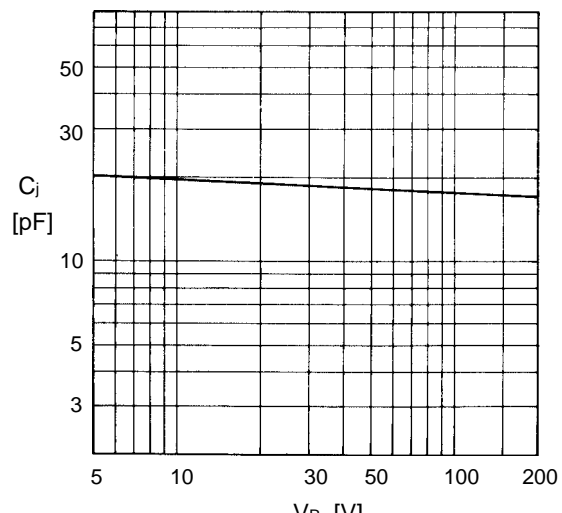
Reverse power dissipation



Output current-case temperature



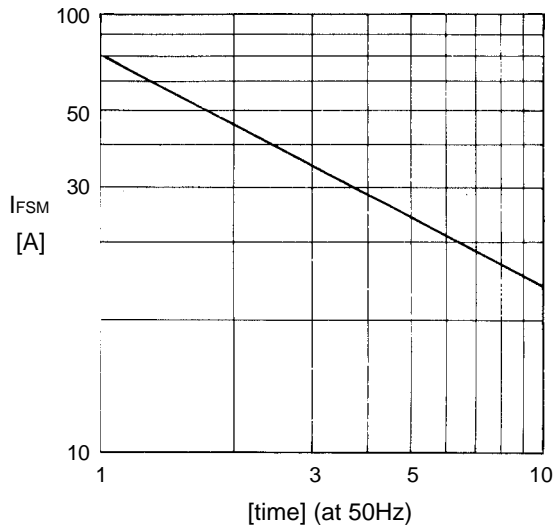
Junction capacitance characteristics



**(300V / 20A )**

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Surge capability



Transient thermal impedance

