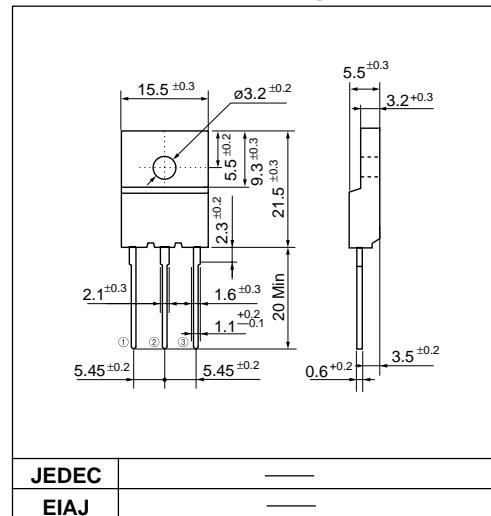


# ESAC93M-03R (12A)

( 300V / 12A )

## LOW LOSS SUPER HIGH SPEED RECTIFIER

## ■ Outline drawings, mm



## ■ Features

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

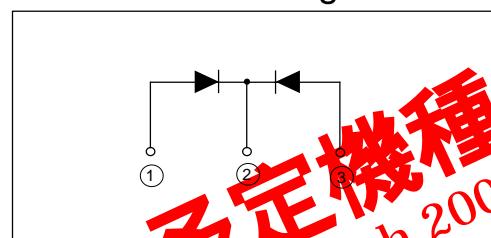
## ■ Applications

- High speed power switching

## ■ Maximum ratings and characteristics

- Absolute maximum ratings

## ■ Connection diagram



Item	Symbol	Conditions	Rating	Unit
Repetitive peak reverse voltage	V <sub>RRM</sub>		300	V
Non-repetitive peak reverse voltage	V <sub>RSM</sub>		300	V
Isolating voltage	I <sub>iso</sub>	Terminals-to-case, AC. 1 min.	1500	V
Average output current	I <sub>o</sub>	Square wave, duty=1/2, T <sub>c</sub> =104°C	12*	A
Surge current	I <sub>FSM</sub>	Sine wave 10ms	50	A
Operating junction temperature	T <sub>j</sub>		-40 to +150	°C
Storage temperature	T <sub>stg</sub>		-40 to +150	°C

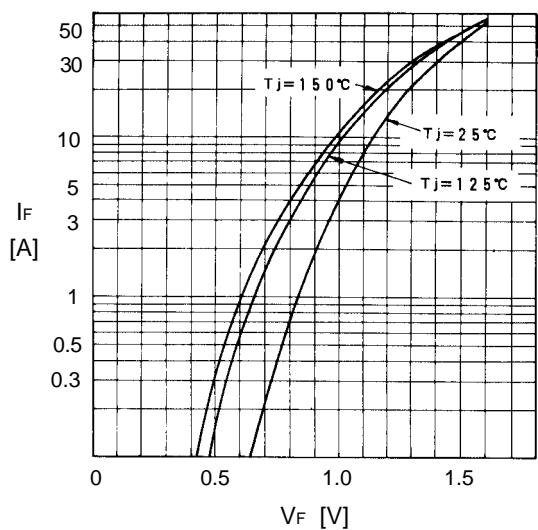
\* Average forward current of centertap full wave connection

- Electrical characteristics (Ta=25°C Unless otherwise specified )

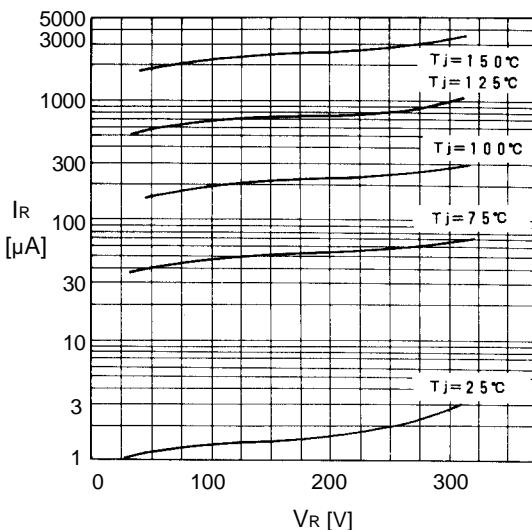
Item	Symbol	Conditions	Max.	Unit
Forward voltage drop	V <sub>FM</sub>	I <sub>FM</sub> =6.0A	1.2	V
Reverse current	I <sub>RRM</sub>	V <sub>R</sub> =V <sub>RRM</sub>	100	µA
Reverse recovery time	t <sub>rr</sub>	I <sub>f</sub> =0.1A, I <sub>r</sub> =0.2A, I <sub>rec</sub> =0.05A	35	ns
Thermal resistance	R <sub>th(j-c)</sub>	Junction to case	2.7*	°C/W

## ■ Characteristics

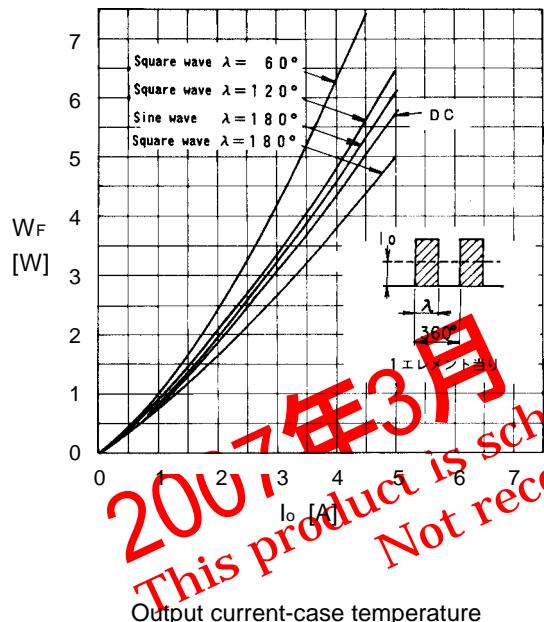
Forward characteristics



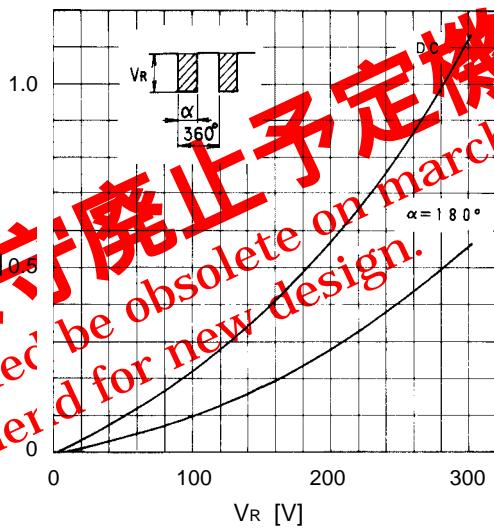
Reverse characteristics



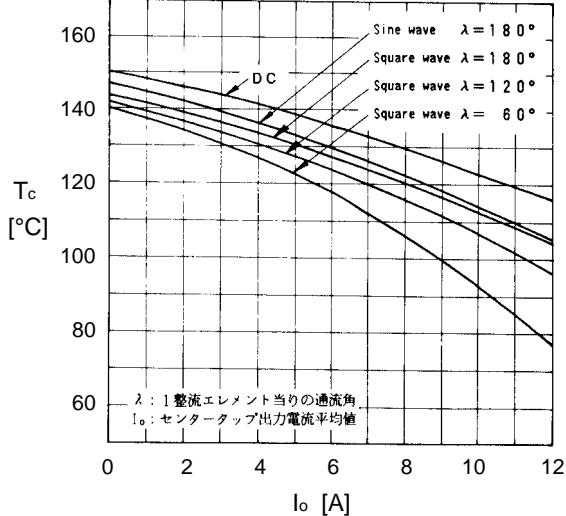
Forward power dissipation



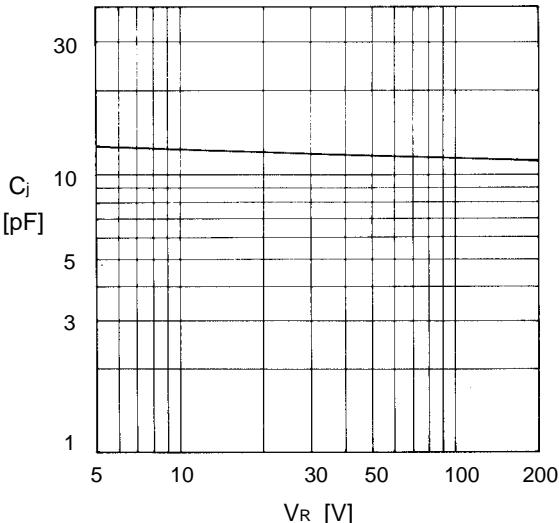
Forward power dissipation



Output current-case temperature

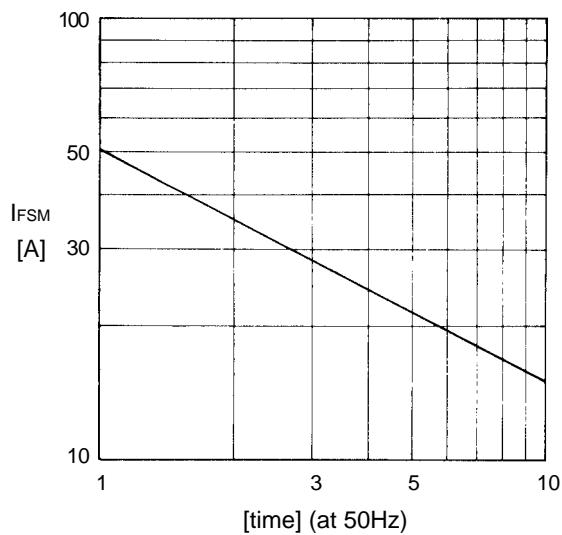


Junction capacitance characteristics

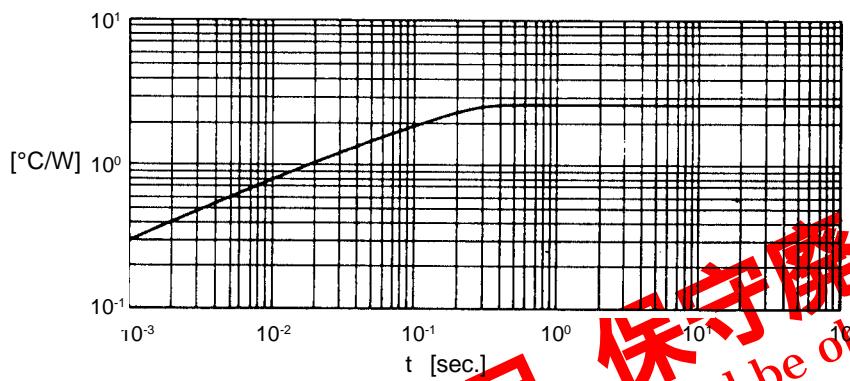


This product is scheduled to be obsolete on March 2007.  
Not recommended for new design.

Surge capability



Transient thermal impedance



2007年3月 保有停止予定機種  
This product is scheduled be obsolete on march 2007.  
Not recommend for new design.