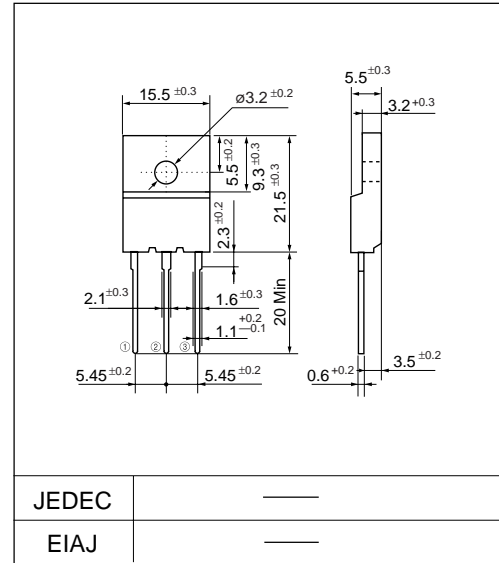


# ESAC83M-004 (20A)

(40V / 20A)

## SCHOTTKY BARRIER DIODE

### Outline drawings, mm



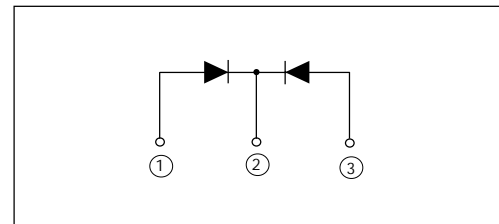
### Features

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

### Applications

- High speed power switching

### Connection diagram



### Maximum ratings and characteristics

- Absolute maximum ratings

Item	Symbol	Conditions	Rating	Unit
Repetitive peak reverse voltage	$V_{RRM}$		40	V
Non-repetitive peak reverse voltage	$V_{RSM}$	$t_w=500ns$ , $duty=1/40$	48	V
Average output current	$I_o$	Square wave, $duty=1/2$ $T_c=79^\circ C$	20*	A
Surge current	$I_{FSM}$	Sine wave 10ms	120	A
Operating junction temperature	$T_j$		-40 to +150	$^\circ C$
Storage temperature	$T_{stg}$		-40 to +150	$^\circ C$

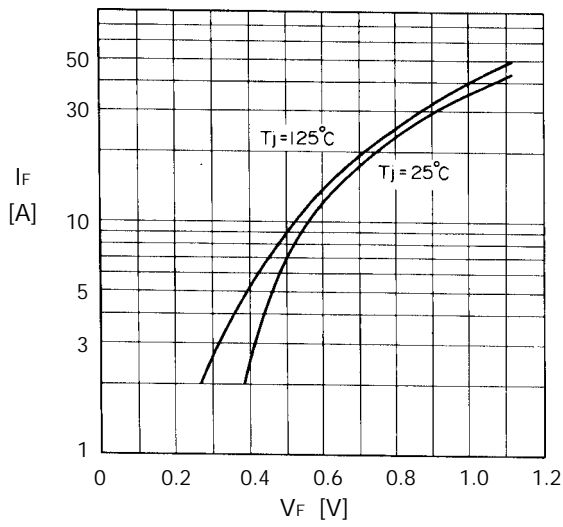
\* Average forward current of centertap full wave connection

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

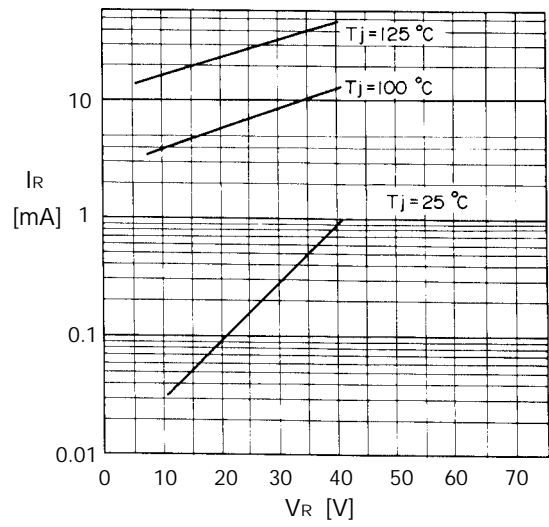
Item	Symbol	Conditions	Max.	Unit
Forward voltage drop	$V_{FM}$	$I_{FM}=8A$	0.55	V
Reverse current	$I_{RRM}$	$V_R=V_{RRM}$	15	mA
Thermal resistance	$R_{th(j-c)}$	Junction to case	2.5	$^\circ C/W$

■ Characteristics

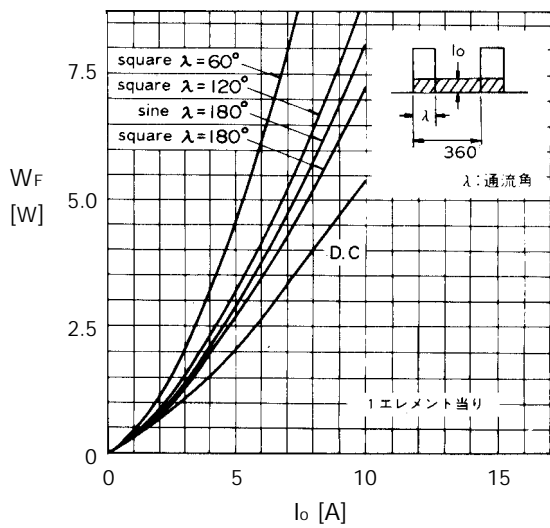
Forward characteristics



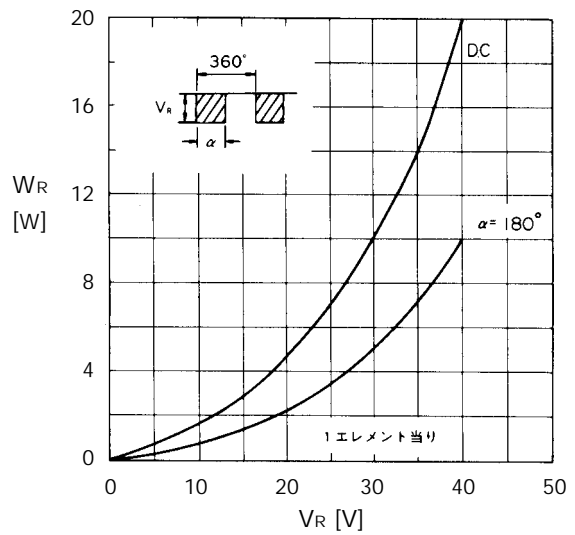
Reverse characteristics



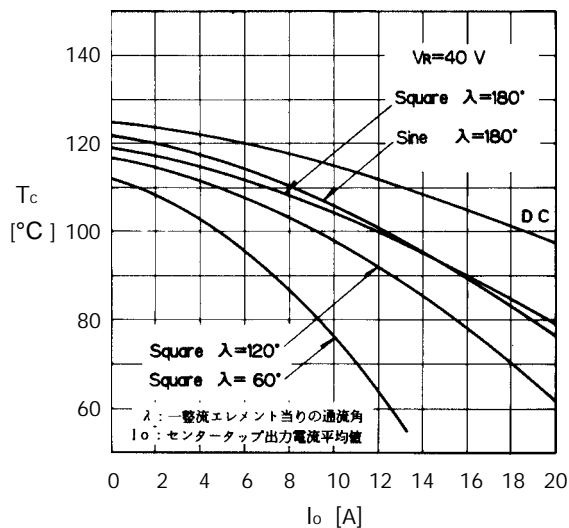
Forward power dissipation



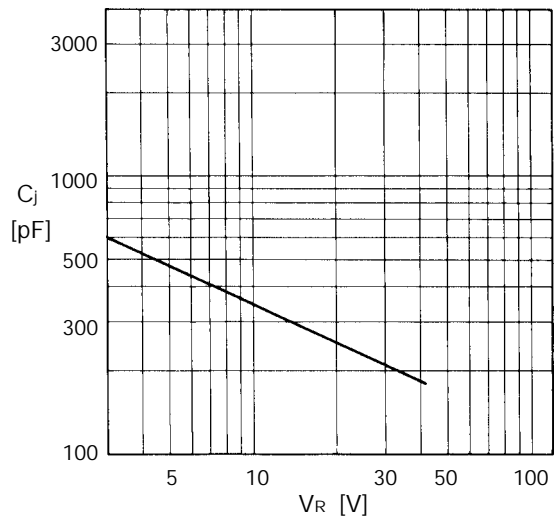
Reverse power dissipation



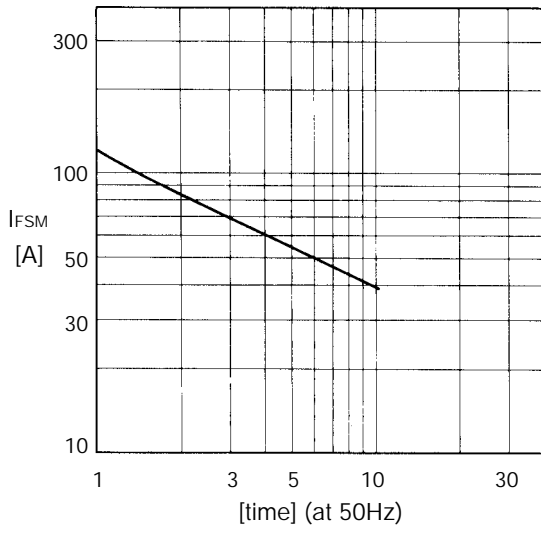
Output current-case temperature



Junction capacitance characteristics



Surge capability



Transient thermal impedance

