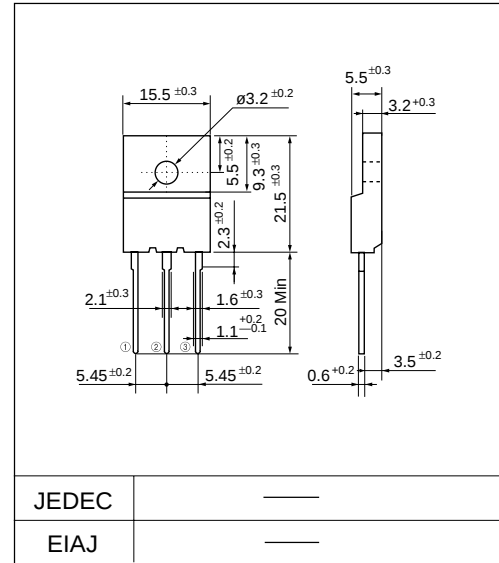


ESAC83M-004R (20A) (40V / 20A)

SCHOTTKY BARRIER DIODE

■ Outline drawings, mm



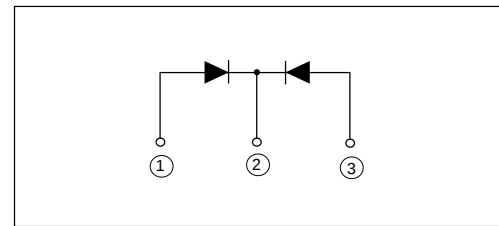
■ Features

- 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 $T_c=99^{\circ}C$	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	$^{\circ}C$

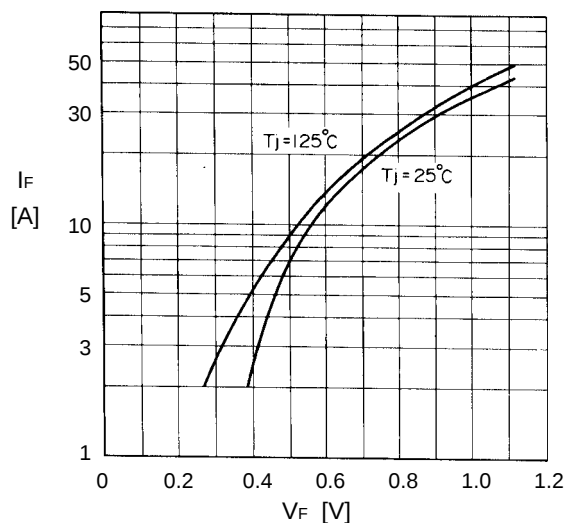
* Average forward current of centertap full wave connection

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

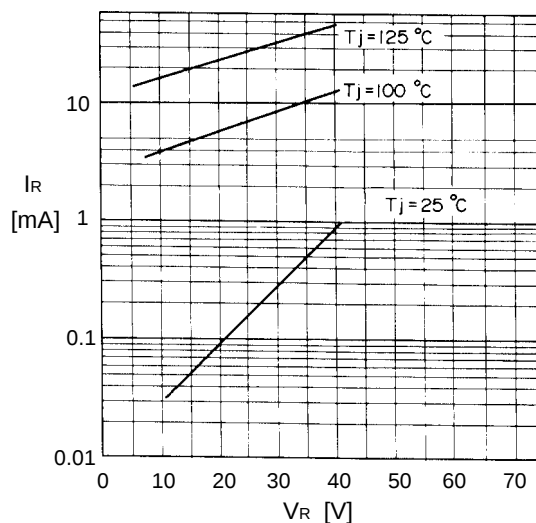
Item	Symbol	Conditions	Max.	Unit
Forward voltage drop	V_{FM}	$I_{FM}=8A$	0.55	V
Reverse current	I_{RRM}	$V_R=V_{RRM}$	15	mA
Thermal resistance	$R_{th(j-c)}$	Junction to case	2.5	$^{\circ}C/W$

■ Characteristics

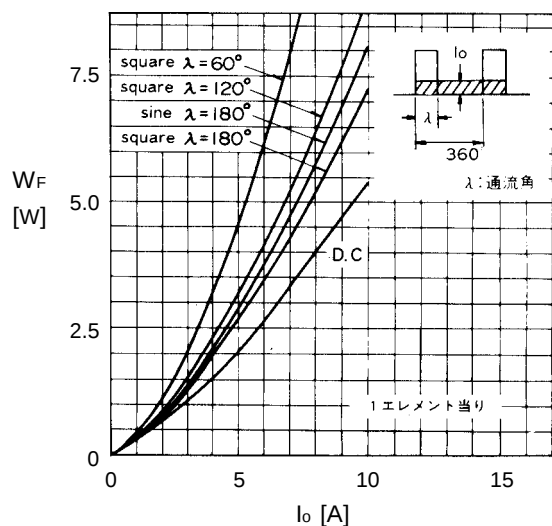
Forward characteristics



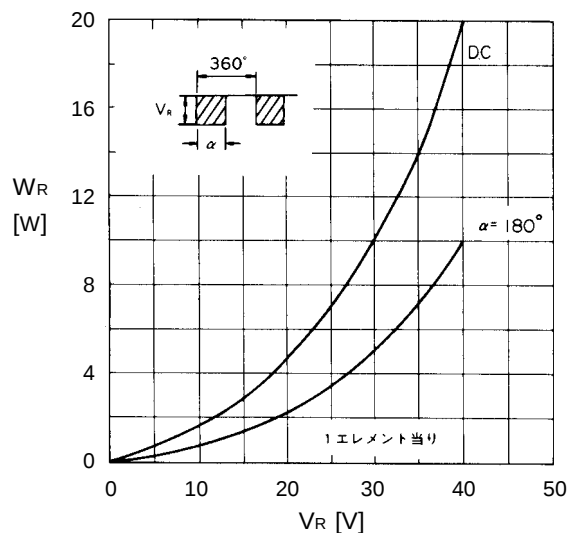
Reverse characteristics



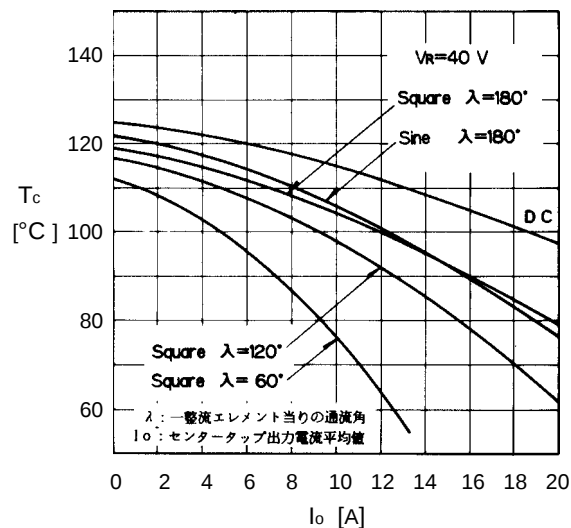
Forward power dissipation



Reverse power dissipation



Output current-case temperature



Junction capacitance characteristics

