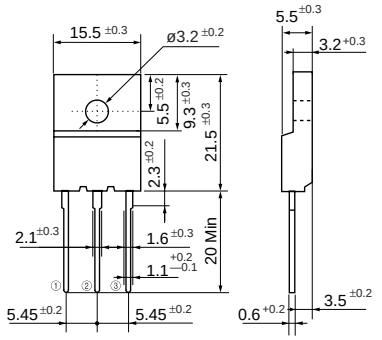
ESAD92M-03 (20A) (300V / 20A)

LOW LOSS SUPER HIGH SPEED RECTIFIER

■ Outline drawings, mm



JEDEC	——
EIAJ	——

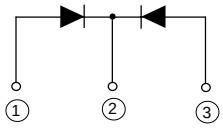
■ Features

- 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}		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, Tc=96°C	20*	A
Surge current	I_{FSM}	Sine wave 10ms	80	A
Operating junction temperature	T_j		-40 to +150	°C
Storage temperature	T_{stg}		-40 to +150	°C

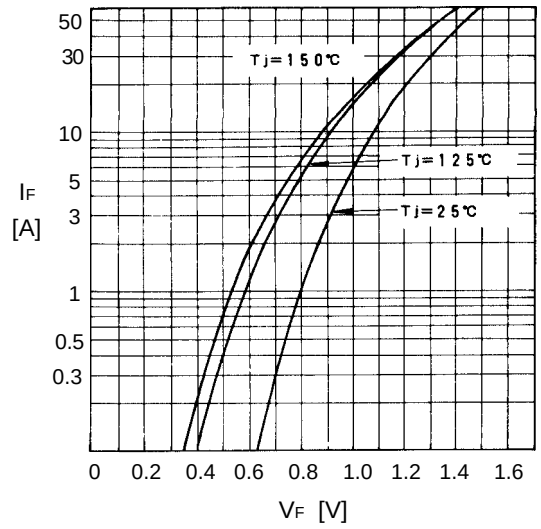
*Average forward current of centertap full wave connection

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

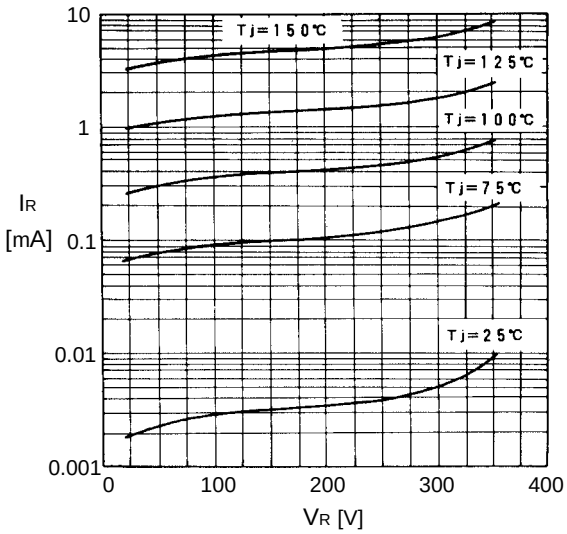
Item	Symbol	Conditions	Max.	Unit
Forward voltage drop	V_{FM}	I_{FM}=10A	1.2	V
Reverse current	I_{RRM}	V_R=V_{RRM}	200	μA
Reverse recovery time	t rr	I_F=0.1A, I_R=0.2A, Irec=0.05A	40	ns
Thermal resistance	$R_{th(j-c)}$	Junction to case	2.0*	°C/W

■ Characteristics

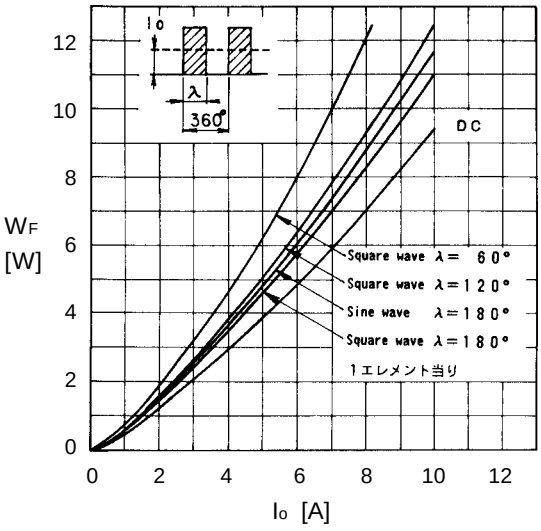
Forward characteristics



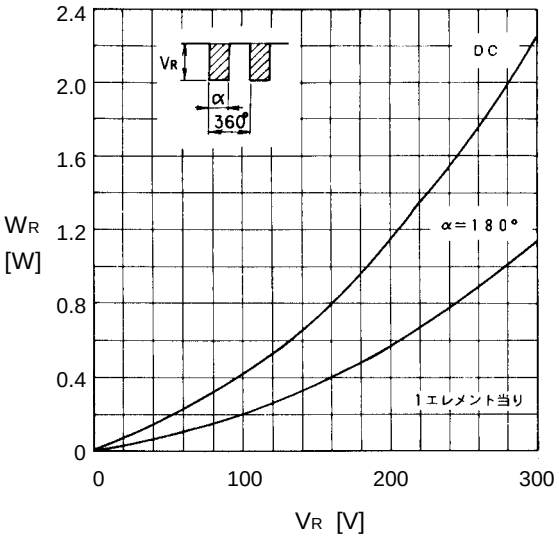
Reverse characteristics



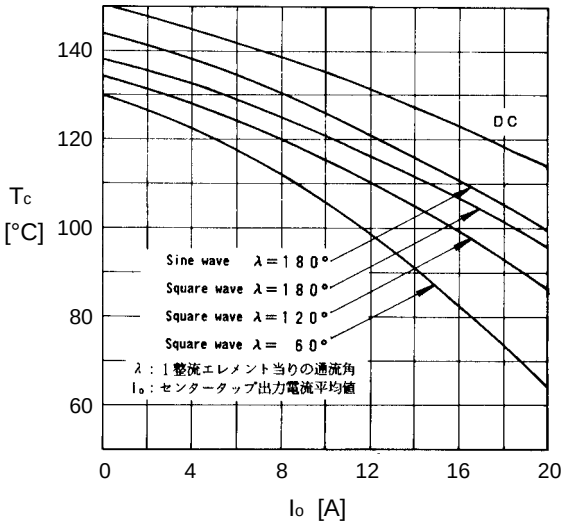
Forward power dissipation



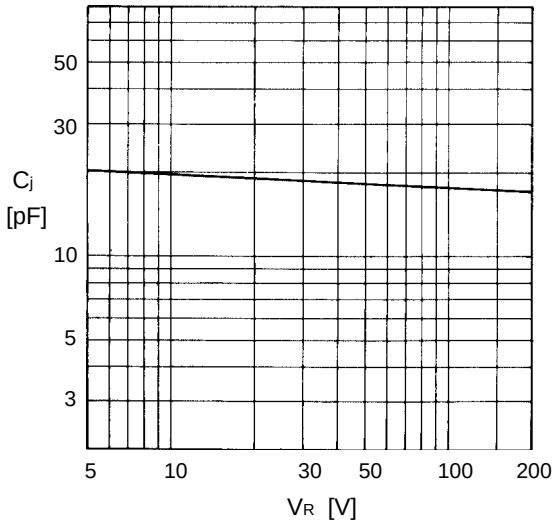
Reverse power dissipation



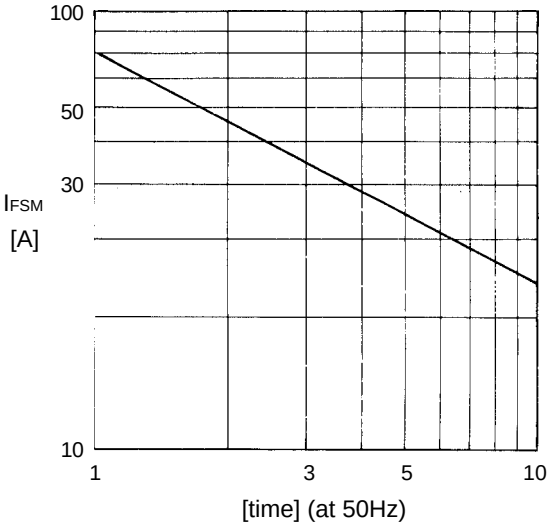
Output current-case temperature



Junction capacitance characteristics



Surge capability



Transient thermal impedance