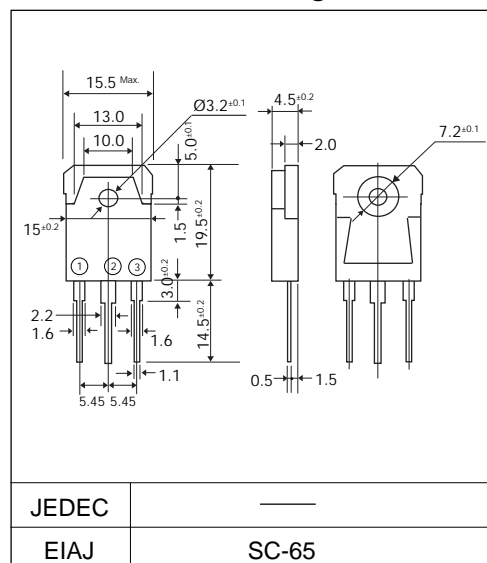


# ESAD83-004 (30A)

(40V / 30A )

## SCHOTTKY BARRIER DIODE

### ■ Outline drawings, mm



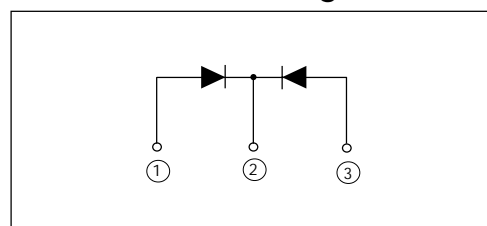
### ■ Features

- 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, $duty=1/2$ $T_c=90^{\circ}C$	30*	A
Suege current	$I_{FSM}$	Sine wave 10ms	250	A
Operating junction temperature	$T_j$		-40 to +150	$^{\circ}C$
Storage temperature	$T_{stg}$		-40 to +150	$^{\circ}C$

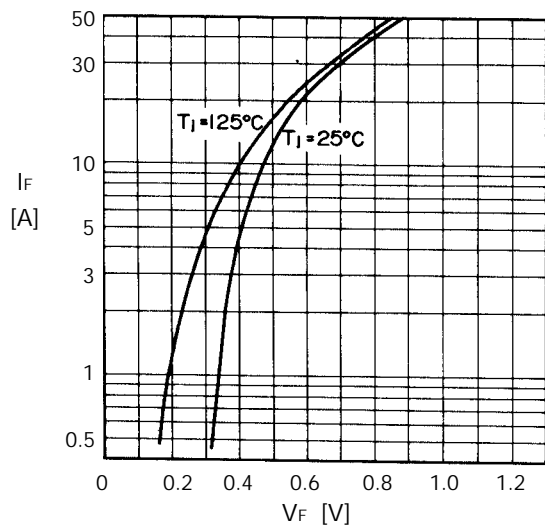
\* Average forward current of centertap full wave connection

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

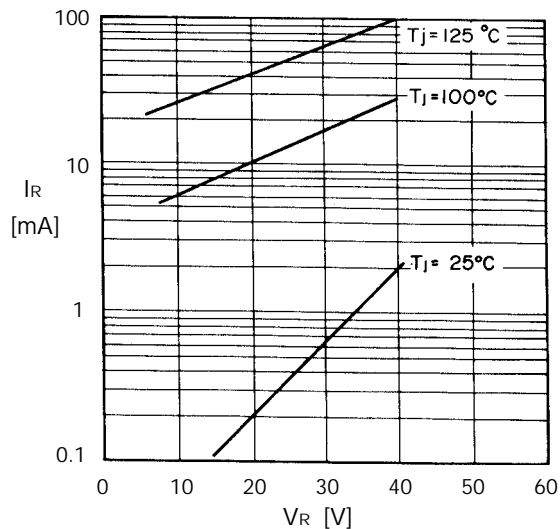
Item	Symbol	Conditions	Max.	Unit
Forward voltage drop	$V_{FM}$	$I_{FM}=12.5A$	0.55	V
Reverse current	$I_{RRM}$	$V_R=V_{RRM}$	20	mA
Thermal resistance	$R_{th(j-c)}$	Junction to case	1.2	$^{\circ}C/W$

**■ Characteristics**

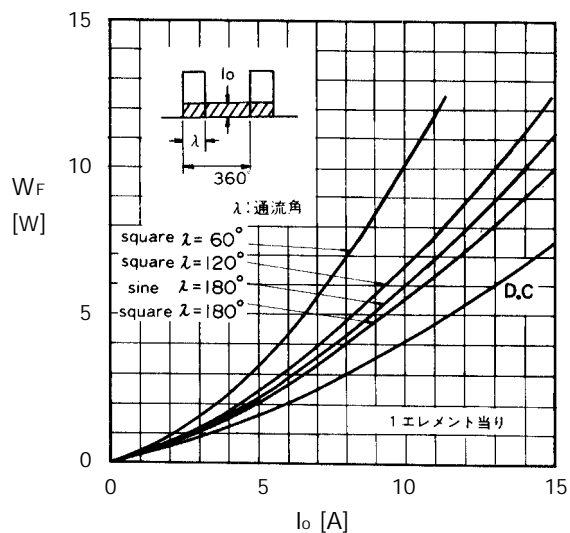
Forward characteristics



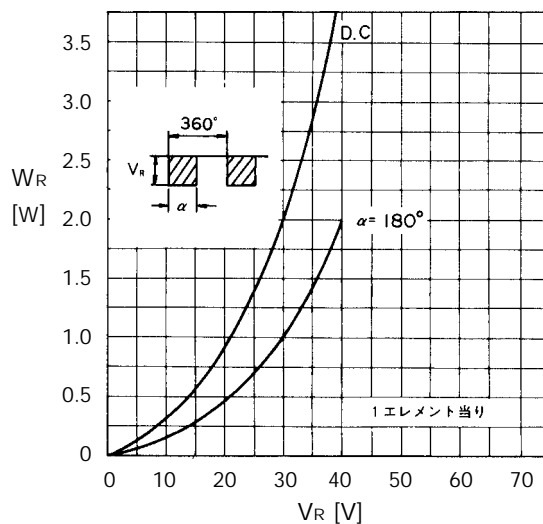
Reverse characteristics



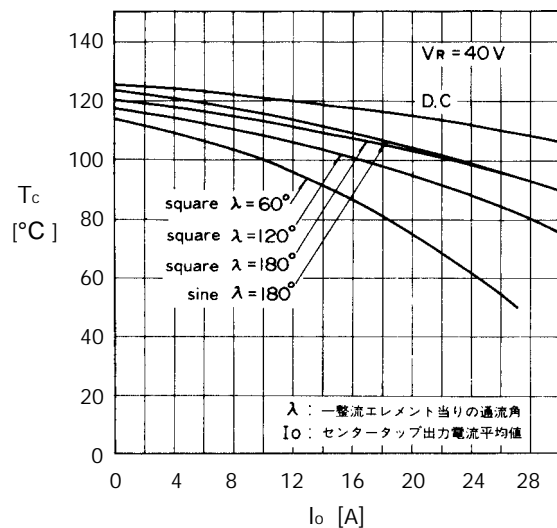
Forward power dissipation



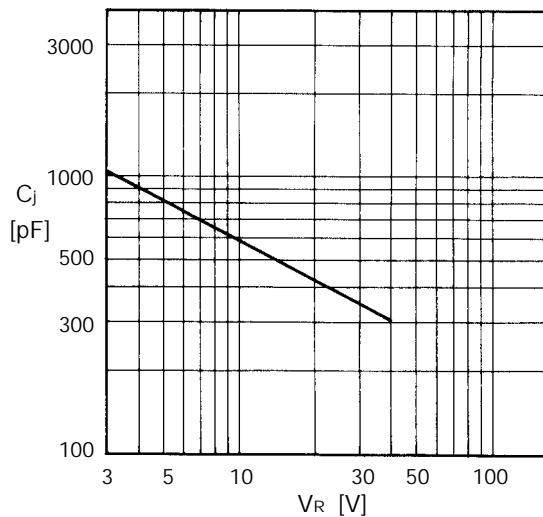
Reverse power dissipation



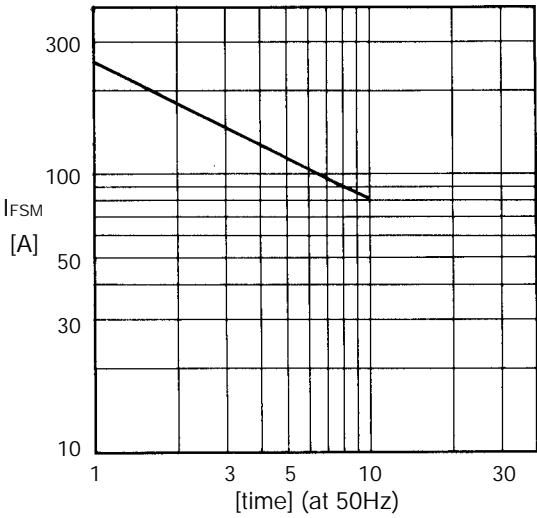
Output current-case temperature



Junction capacitance characteristics



Surge capability



Transient thermal impedance

