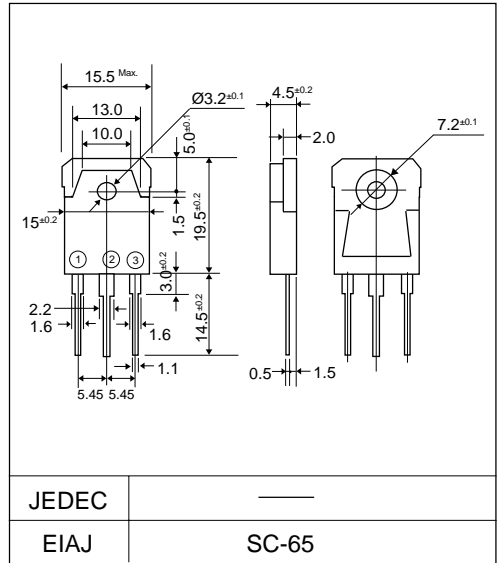


# ESAD83-004 (30A)

**(40V / 30A )**

## SCHOTTKY BARRIER DIODE

■ Outline drawings, mm



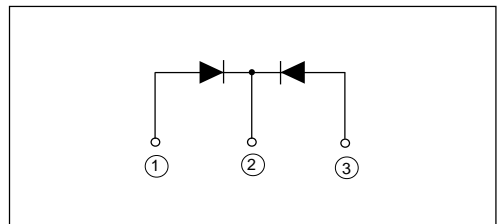
## ■ Features

- 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 <sub>RRM</sub>		40	V
Non-repetitive peak reverse voltage	V <sub>RSM</sub>	tw=500ns, duty=1/40	48	V
Average output current	I <sub>o</sub>	Square wave, duty=1/2 Tc=118°C	30*	A
Suege current	I <sub>FSM</sub>	Sine wave 10ms	250	A
Operating junction temperature	T <sub>j</sub>		-40 to +150	°C
Storage temperature	T <sub>stg</sub>		-40 to +150	°C

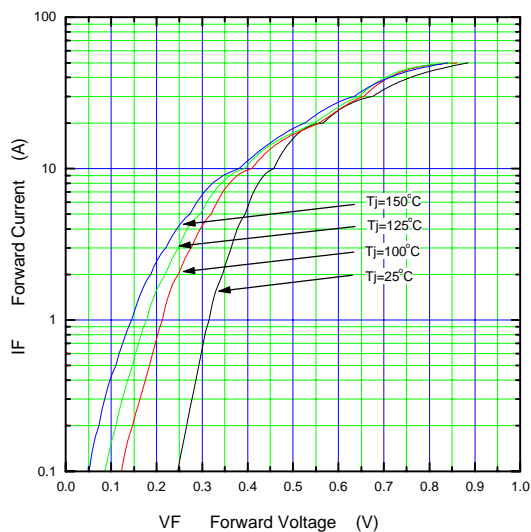
\* Average forward current of centertap full wave connection

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

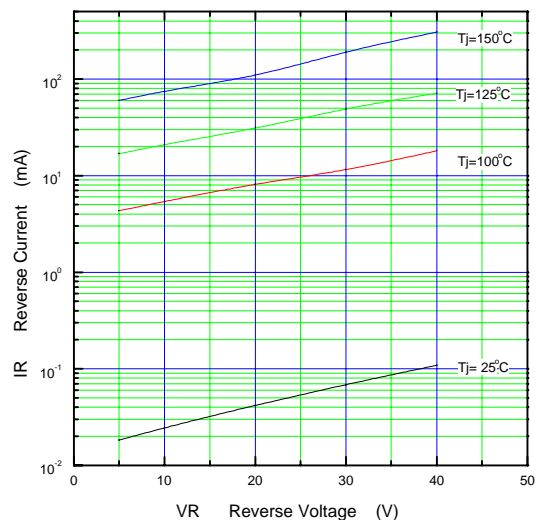
Item	Symbol	Conditions	Max.	Unit
Forward voltage drop	$V_{FM}$	$I_{FM}=12.5A$	0.55	V
Reverse current	$I_{RRM}$	$V_R=V_{RRM}$	20	mA
Thermal resistance	$R_{th(j-c)}$	Junction to case	1.2	°C/W

## Characteristics

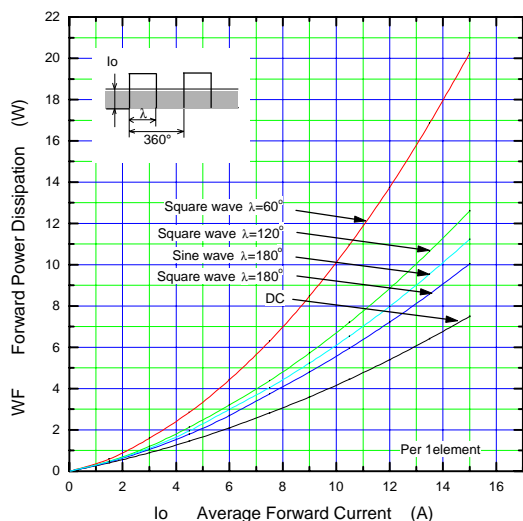
Forward Characteristic (typ.)



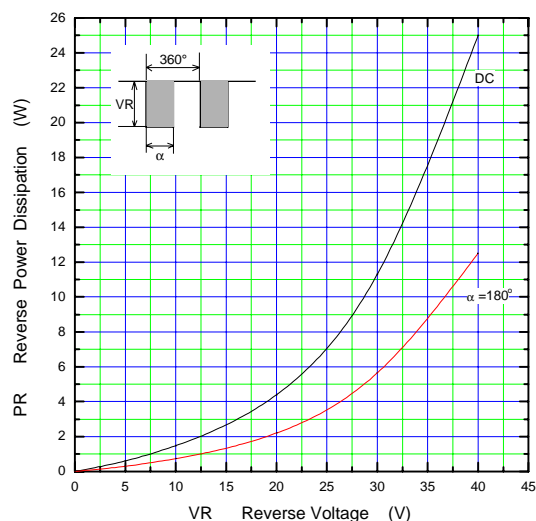
Reverse Characteristic (typ.)



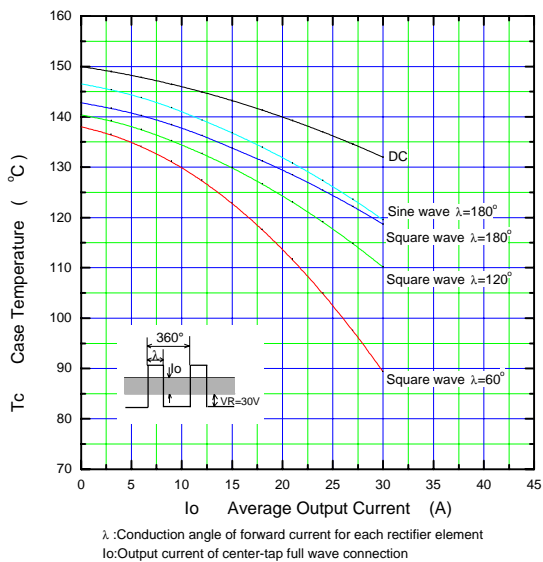
Forward Power Dissipation



Reverse Power Dissipation



Current Derating ( $I_o$ - $T_c$ )



Junction Capacitance Characteristic (typ.)

