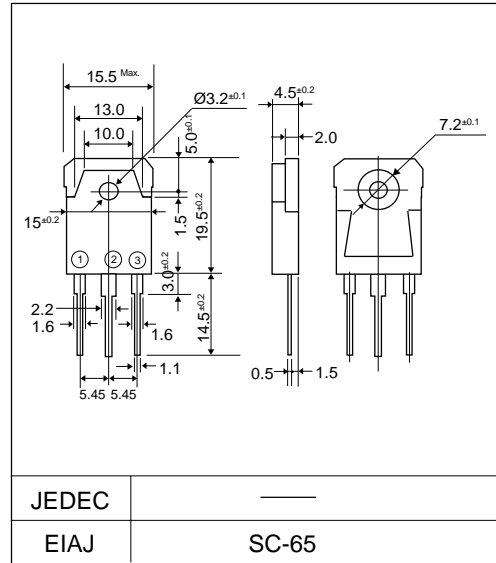


# ESAD83-004 (30A)

(40V / 30A)

## SCHOTTKY BARRIER DIODE

### Outline drawings, mm



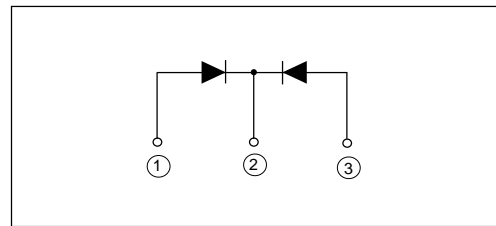
### Features

- 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	$V_{RSM}$	$t_w=500\text{ns}$ , $\text{duty}=1/40$	48	V
Average output current	$I_o$	Square wave, $\text{duty}=1/2$ $T_c=118^\circ\text{C}$	30*	A
Suege current	$I_{FSM}$	Sine wave 10ms	250	A
Operating junction temperature	$T_j$		-40 to +150	$^\circ\text{C}$
Storage temperature	$T_{stg}$		-40 to +150	$^\circ\text{C}$

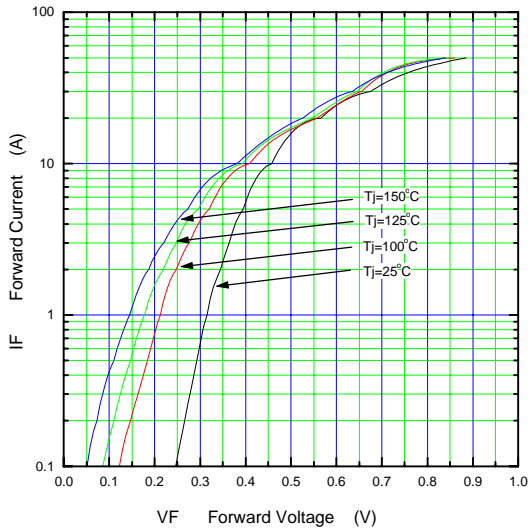
\* Average forward current of centertap full wave connection

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

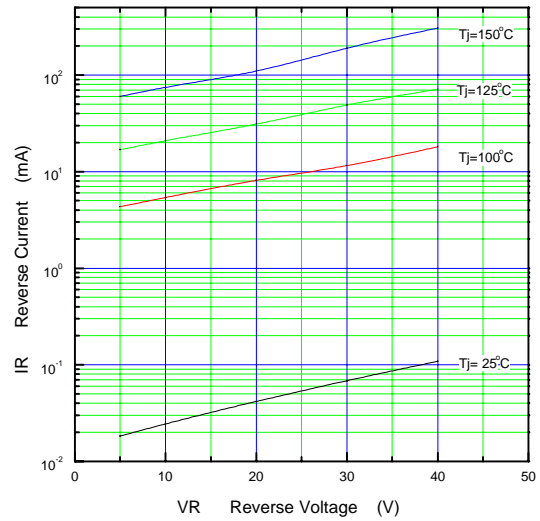
Item	Symbol	Conditions	Max.	Unit
Forward voltage drop	$V_{FM}$	$I_{FM}=12.5\text{A}$	0.55	V
Reverse current	$I_{RRM}$	$V_R=V_{RRM}$	20	mA
Thermal resistance	$R_{th(j-c)}$	Junction to case	1.2	$^\circ\text{C/W}$

■ Characteristics

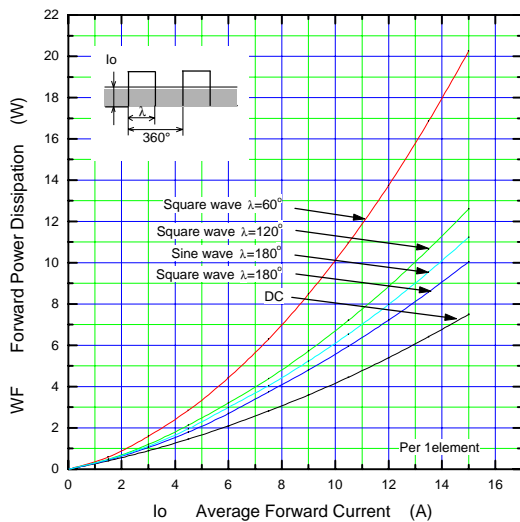
Forward Characteristic (typ.)



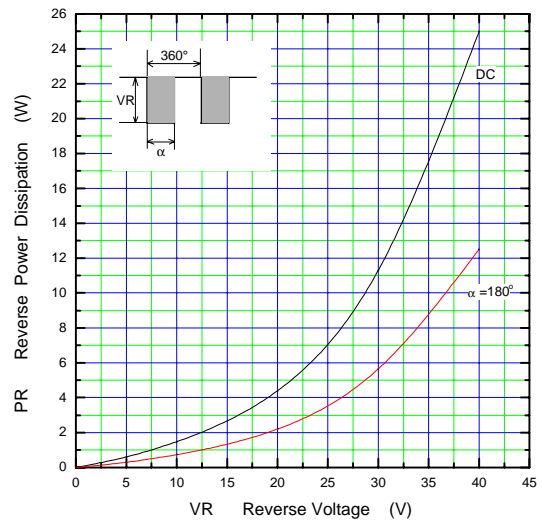
Reverse Characteristic (typ.)



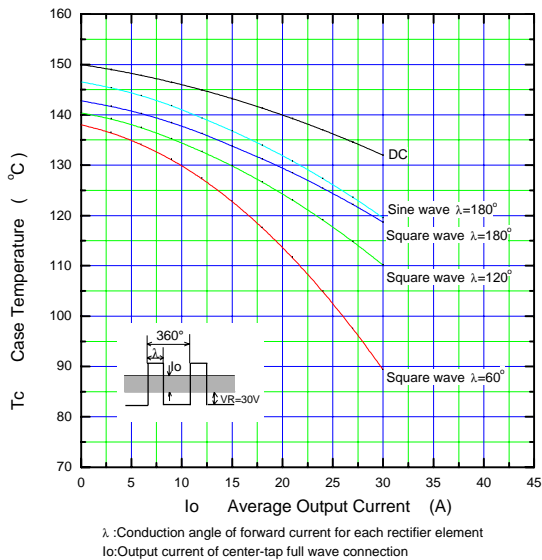
Forward Power Dissipation



Reverse Power Dissipation



Current Derating ( $I_o$ - $T_c$ )



Junction Capacitance Characteristic (typ.)

