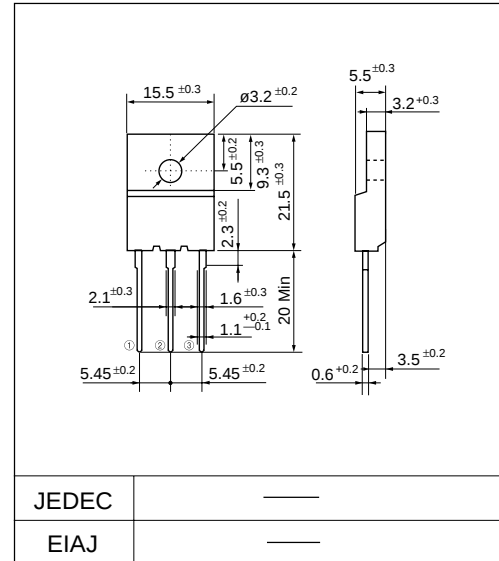


ESAD83M-004R (30A) (40V / 30A)

SCHOTTKY BARRIER DIODE

■ Outline drawings, mm



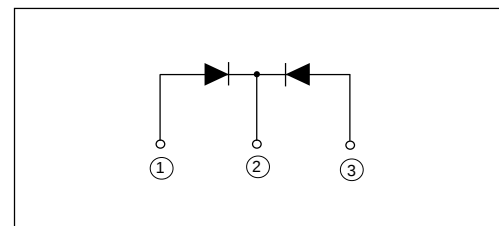
■ Features

- 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	Ratings	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 $T_c=105^{\circ}C$	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)

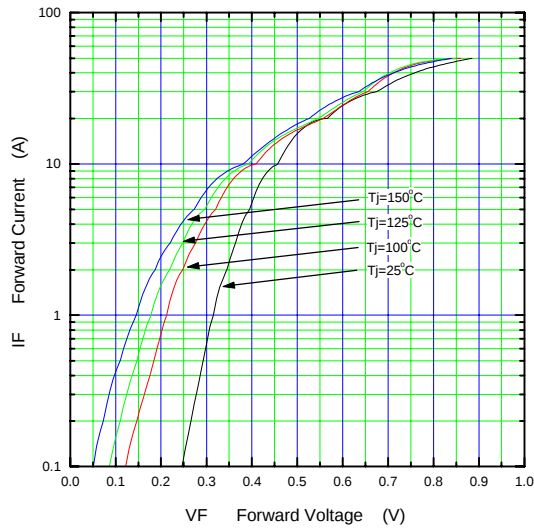
Item	Symbol	Conditions	Max.	Unit
Forward voltage drop	V_{FM}	$I_{FM}=12.5A$	0.55	V
Reverse current	I_{RRM}	$V_R=V_{RRM}$	20	mA
Thermal resistance	$R_{th(j-c)}$	Junction to case	1.7	$^{\circ}C/W$

(40V / 30A)

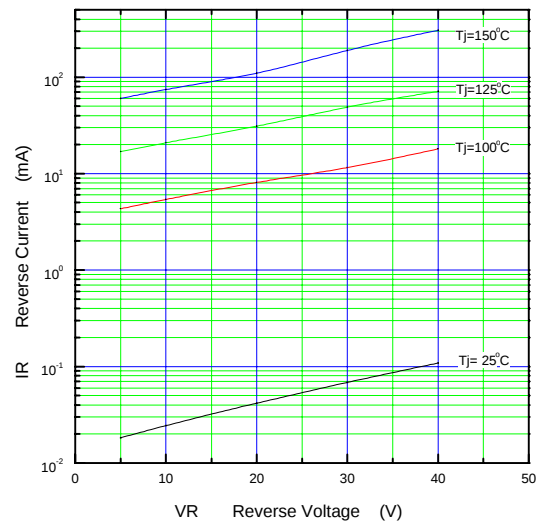
ESAD83M-004R (30A)

Characteristics

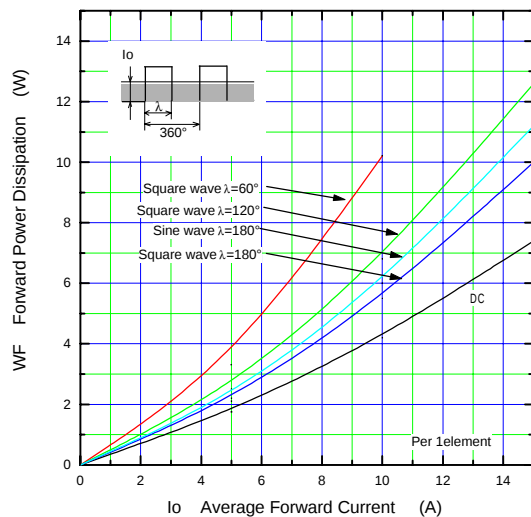
Forward Characteristic (typ.)



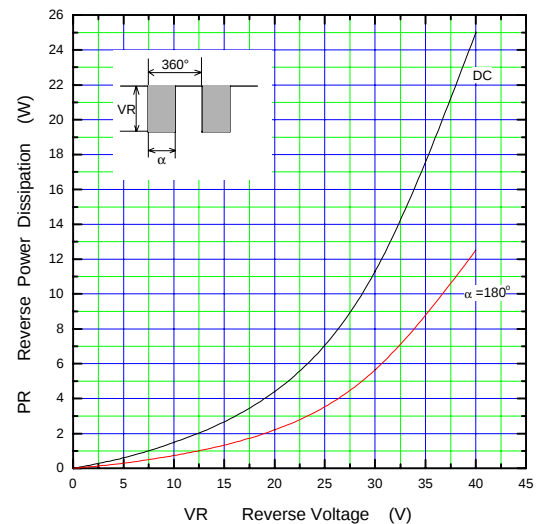
Reverse Characteristic (typ.)



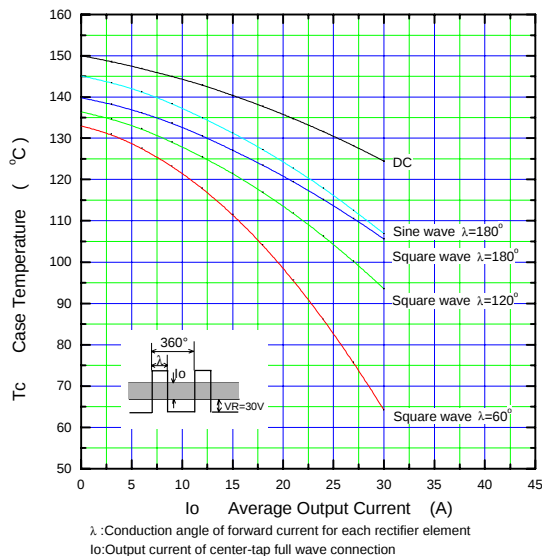
Forward Power Dissipation



Reverse Power Dissipation



Current Derating (I_o - T_c)



Junction Capacitance Characteristic (typ.)

