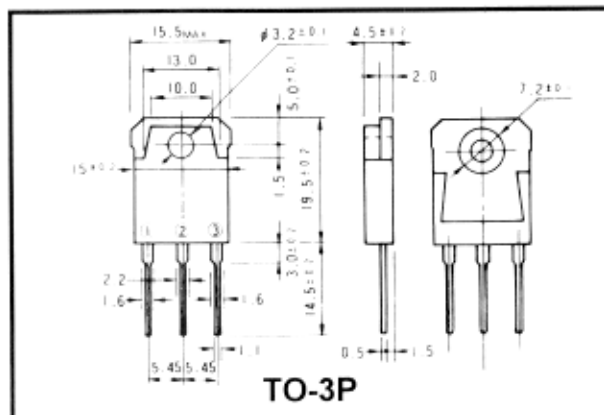


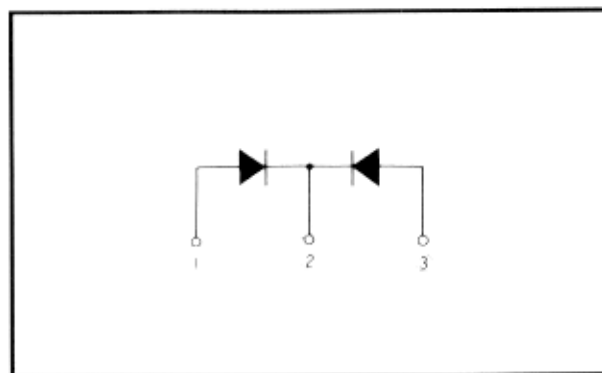
# ESAD83-004K (30A)

SCHOTTKY BARRIER DIODE

## Outline Drawing



## Connection Diagram



## Features

- Low  $V_f$
- Super high speed switching
- High reliability by planer design

## Applications

- High speed power switching

## Maximum Ratings & Characteristics

### Absolute Maximum Ratings

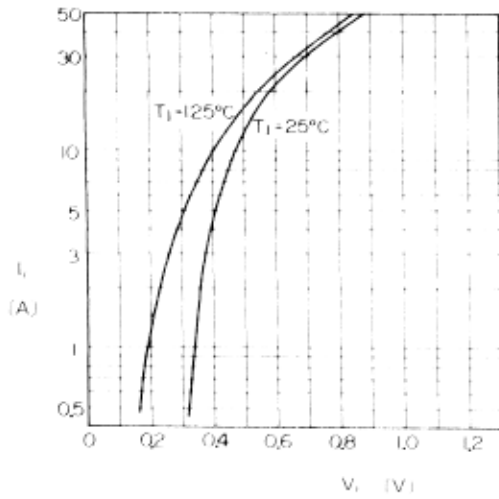
Items	Symbols	Conditions	Ratings	Units
Repetitive Peak Reverse Voltage	$V_{RRM}$		45	V
Non-Repetitive Peak Reverse Voltage	$V_{RSM}$	$t_w = 500\text{ns}$ , duty = 1/40	48	V
Average Forward Current	$I_O$	$T_c = 90^\circ\text{C}$ , duty 1/2, Square wave	30*	A
Surge Current	$I_{FSM}$	Sine Wave, 10ms	250	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

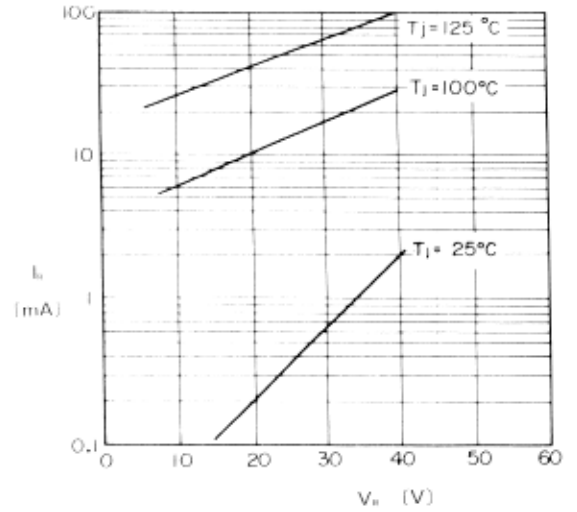
### Electrical Characteristics ( $T_a = 25^\circ\text{C}$ Unless otherwise specified)

Items	Symbols	Conditions	Ratings	Units
Forward Voltage Drop	$V_f$	$I_F = 15\text{A}$	0.55	V
Reverse Current	$I_R$	$V_R = V_{RRM}$	30.0	mA
Thermal Resistance	$R_{th(j-c)}$	Junction to case	1.5	$^\circ\text{C/W}$

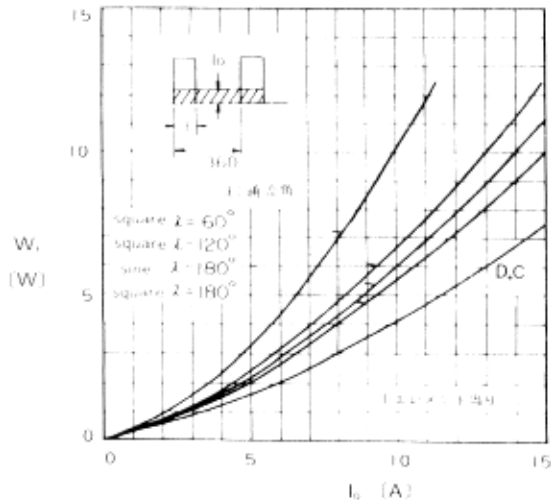
# ESAD83-004K (30A)



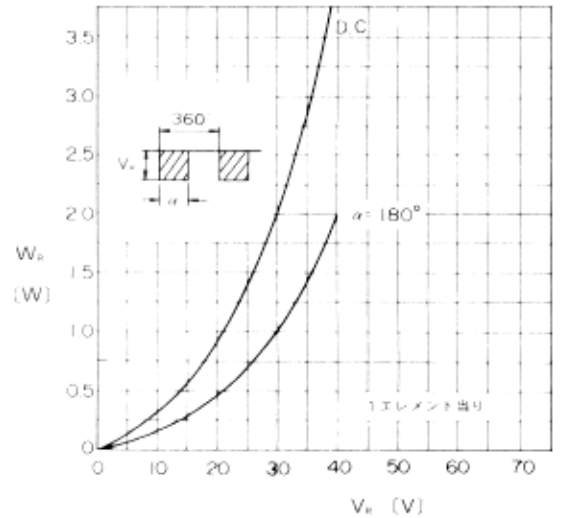
Forward Characteristics



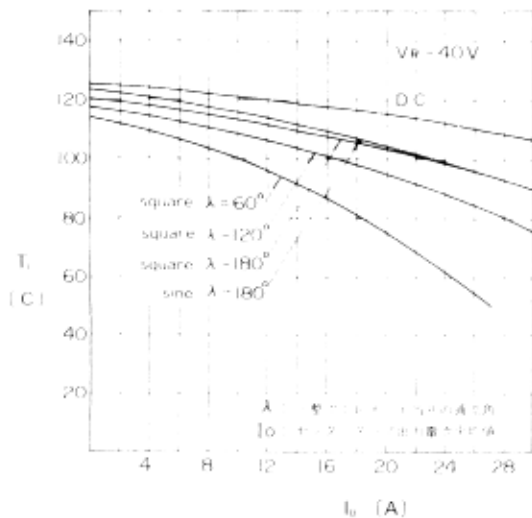
Reverse Characteristics



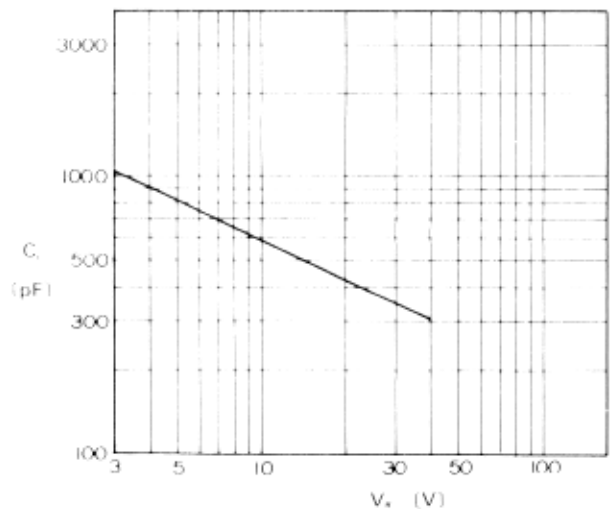
Forward Power Dissipation



Reverse Power Dissipation



Output Current-Case Temperature



Junction Capacitance Characteristics