

# ESAB33(CS) (5A)

(200V / 5A)

## **FAST RECOVERY DIODE**

## ■ Features

- Soft recovery, low noise
  - High reliability

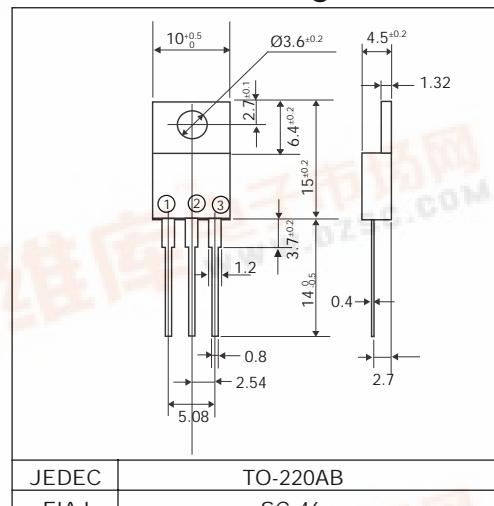
## ■ Applications

- High speed power switching

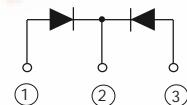
## ■ Maximum ratings and characteristics

- Absolute maximum ratings

## ■ Outline drawings, mm



## ■ Connection diagram



Item	Symbol	Conditions	Rating	Unit
			-02	
Repetitive peak reverse voltage	V <sub>RRM</sub>		200	V
Non-Repetitive peak reverse voltage	V <sub>RSM</sub>		200	V
Average output current	I <sub>O</sub>	Square wave duty=1/2, T <sub>c</sub> =110°C	5*	A
Surge current	I <sub>FSM</sub>	Sine wave 10ms	30	A
Operating junction temperature	T <sub>j</sub>		-40 to +150	°C
Storage temperature	T <sub>stg</sub>		-40 to +150	°C

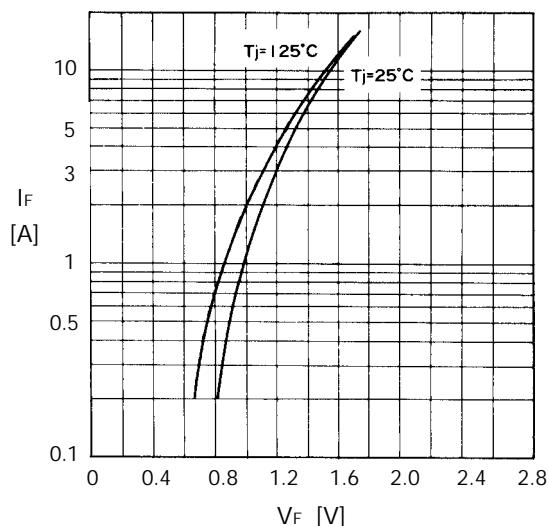
\*Average forward current of centertap full wave connection

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

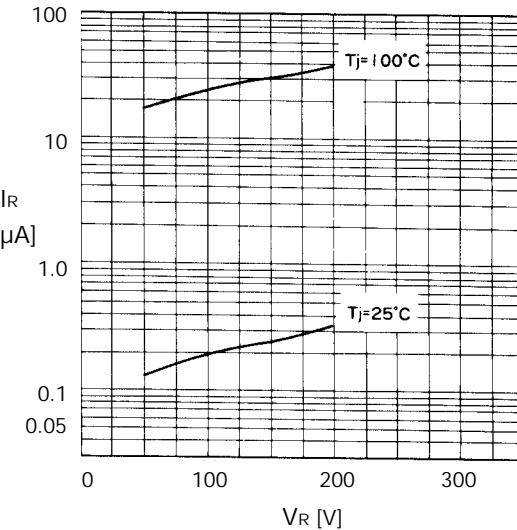
Item	Symbol	Conditions	Max.	Unit
Forward voltage drop	$V_{FM}$	$I_{FM}=2.5A$	1.4	V
Reverse current	$I_{RRM}$	$V_R=V_{RRM}$	100	$\mu A$
Reverse recovery time	$t_{rr}$	$I_F=0.1A, I_R=0.1A$	100	ns
		$I_F=0.1A, I_R=0.2A, I_{rec}=0.05A$	45	
Thermal resistance	$R_{th(j-c)}$	junction to case	5.0	$^{\circ}C/W$

## ■ Characteristics

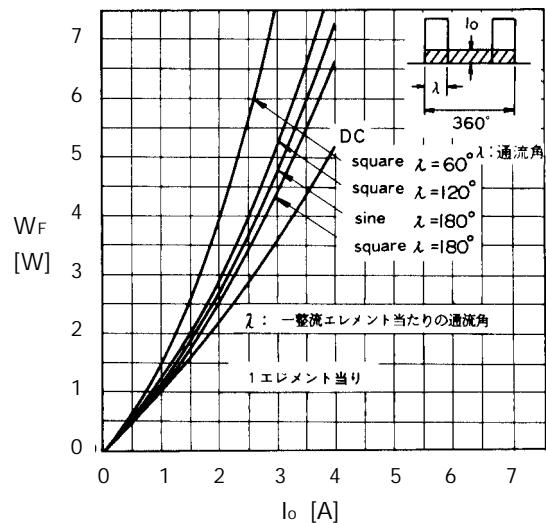
Forward characteristics



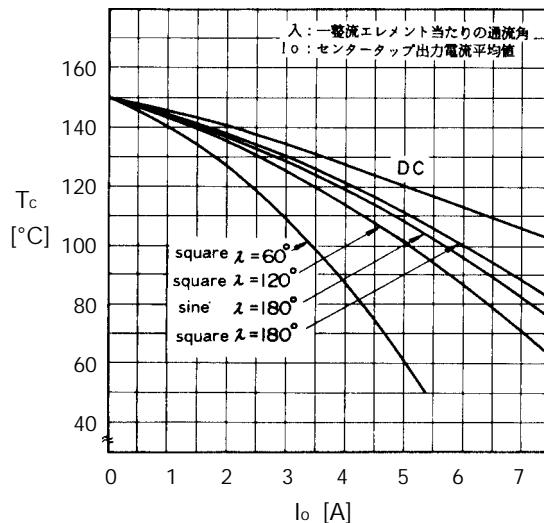
Reverse characteristics



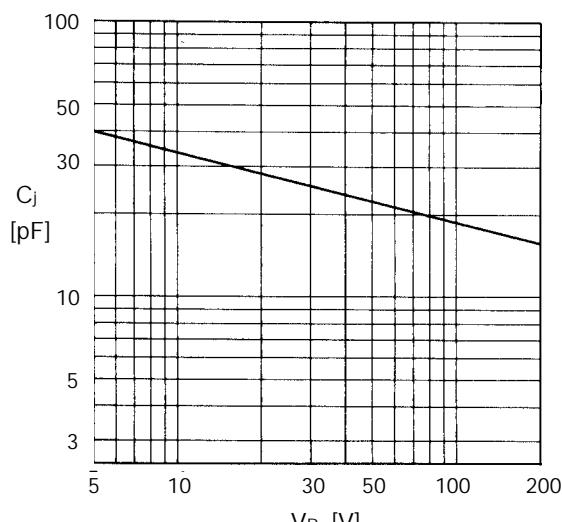
Forward power dissipation



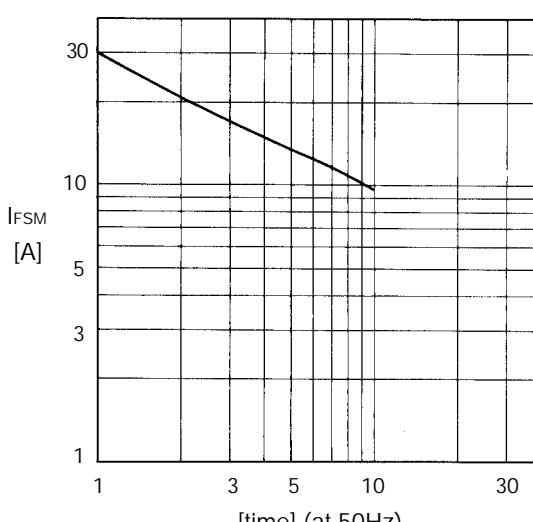
Output current-case temperature



Junction capacitance characteristics



Surge capability



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Transient thermal impedance

