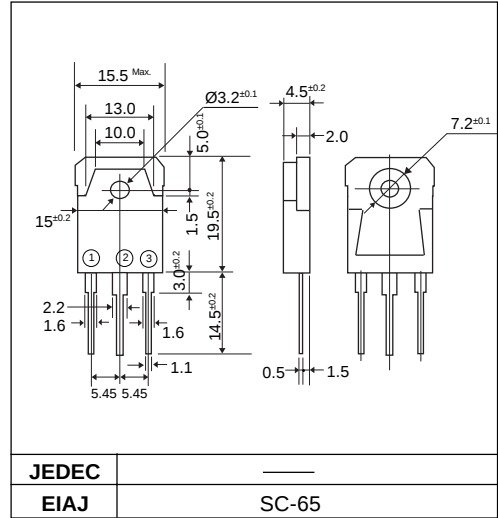


ESAD39(C,N,D) (10A)

(400V to 600V / 10A)

FAST RECOVERY DIODE

■ Outline drawings, mm



■ Features

- Super high speed switching
- Low V_F in turn on
- High reliability

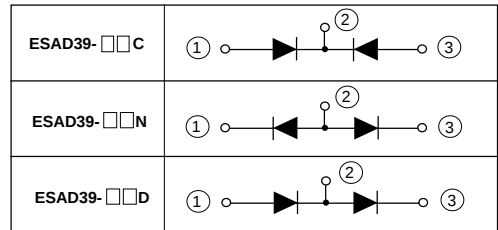
■ Applications

- High speed power switching

■ Maximum ratings and characteristics

- Absolute maximum ratings

■ Connection diagram



Item	Symbol	Conditions	Rating		Unit
			-04	-06	
Repetitive peak reverse voltage	V_{RRM}		400	600	V
Non-repetitive peak reverse voltage	V_{RSM}		400	600	V
Average output current	I_O	Square wave, duty=1/2, $T_c=98^{\circ}\text{C}$	10*		A
Surge current	I_{FSM}	Sine wave 10ms	50		A
Operating junction temperature	T_j		-40 to +150		$^{\circ}\text{C}$
Storage temperature	T_{stg}		-40 to +150		$^{\circ}\text{C}$

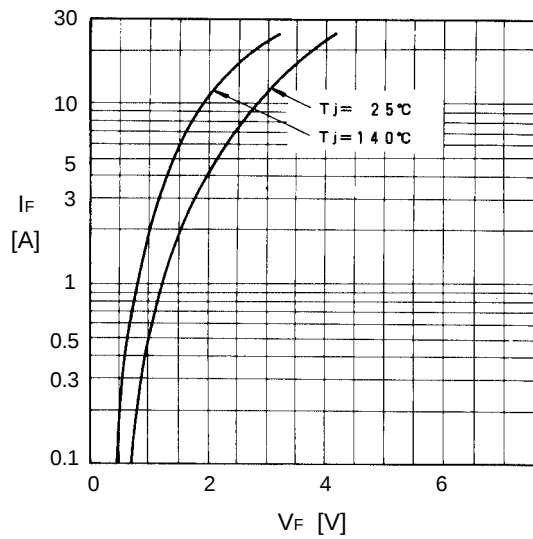
*Average forward current of centertap full wave connection

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

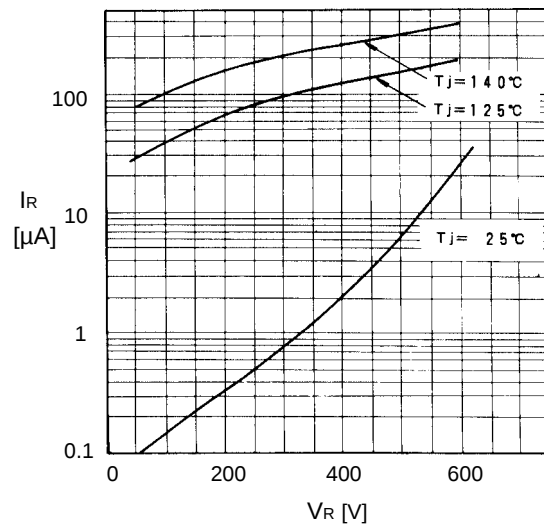
Item	Symbol	Conditions	Max.	Unit
Forward voltage drop	V_{FM}	$I_{FM}=4A$	2.5	V
Reverse current	I_{RRM}	$V_R=V_{RRM}$	100	μA
Reverse recovery time	t_{rr}	$I_F=0.1A, I_R=0.2A, I_{rec}=0.05A$	50	ns
Thermal resistance	$R_{th(j-c)}$	Junction to case	2.0	$^{\circ}C/W$

Characteristics

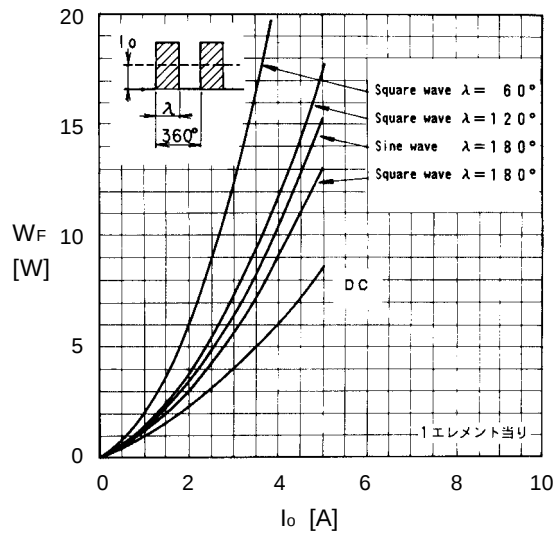
Forward characteristics



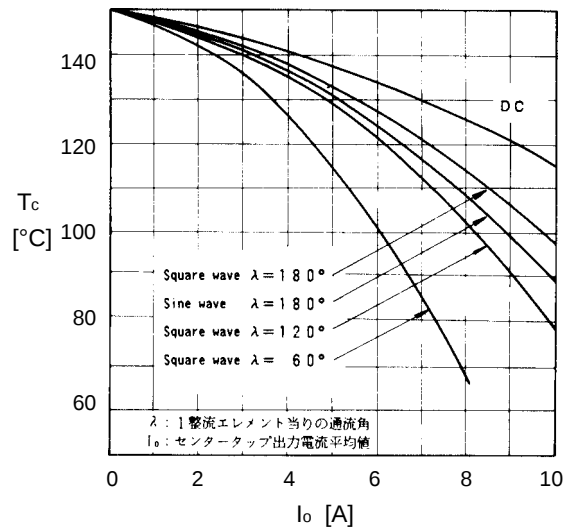
Reverse characteristics



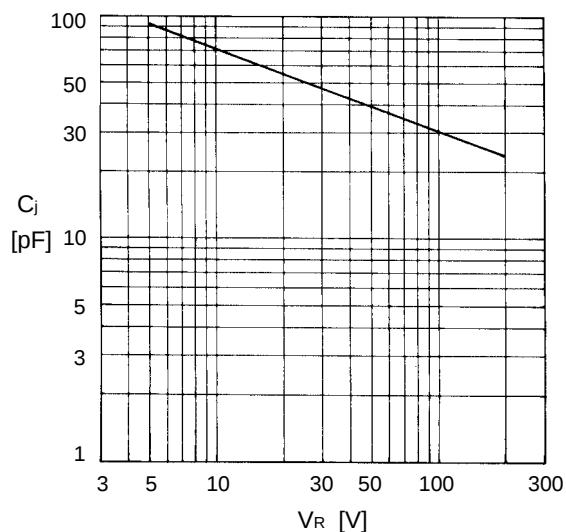
Forward power dissipation



Output current-case temperature



Junction capacitance characteristics



Surge capability

