

ESAC82-004 (10A)

(40V / 10A)

SCHOTTKY BARRIER DIODE

■ Features

- Low VF
- Super high speed switching
- High reliability by planer design

■ Applications

- High speed power switching

■ Maximum ratings and characteristics

- Absolute maximum ratings

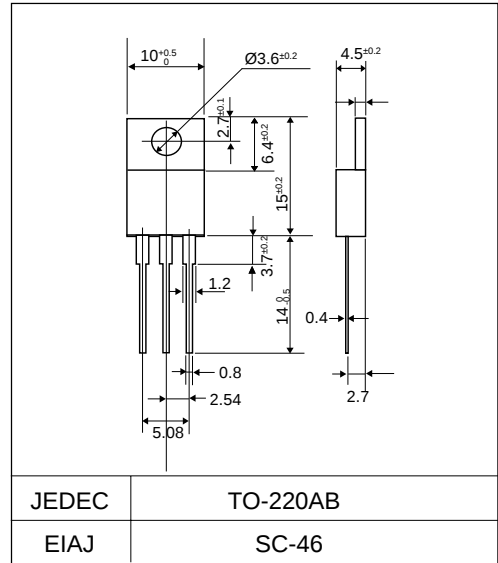
Item	Symbol	Conditions	Rating	Unit
Repetitive peak reverse voltage	V_{RRM}		40	V
Non-repetitive peak reverse voltage	V_{RSM}	tw=500ns, duty=1/40	48	V
Average output current	I_o	Square wave, duty=1/2 Tc=116°C	10*	A
Surge current	I_{FSM}	Sine wave 10ms	120	A
Operating junction temperature	T_j		-40 to +150	°C
Storage temperature	T_{stg}		-40 to +150	°C

* Average forward current of centertap full wave connection

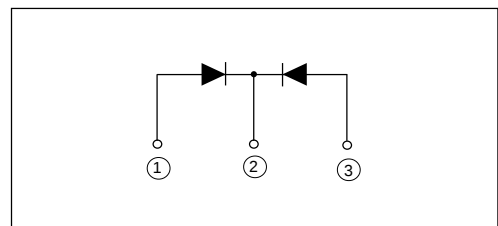
- Electrical characteristics (Ta=25°C Unless otherwise specified)

Item	Symbol	Conditions	Max.	Unit
Forward voltage drop	V_{FM}	$I_{FM}=4.0A$	0.55	V
Reverse current	I_{RRM}	$V_R=V_{RRM}$	5.0	mA
Thermal resistance	$R_{th(j-c)}$	Junction to case	3.0	°C/W

■ Outline drawings, mm

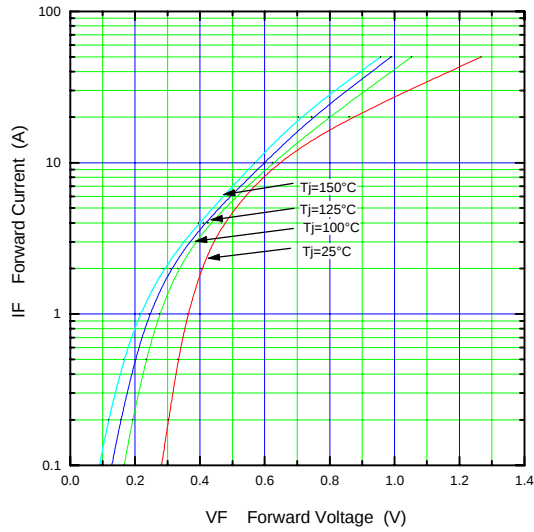


■ Connection diagram

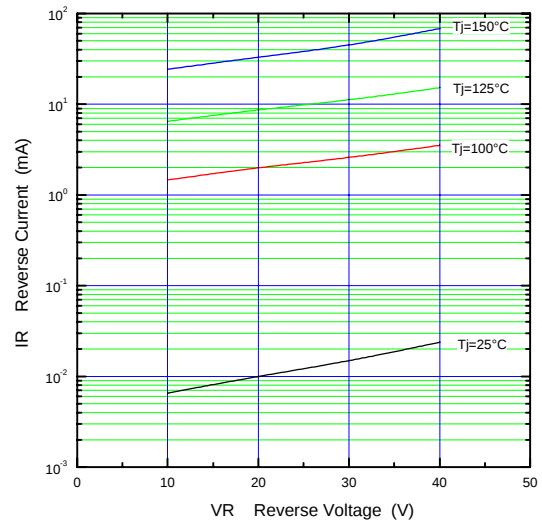


Characteristics

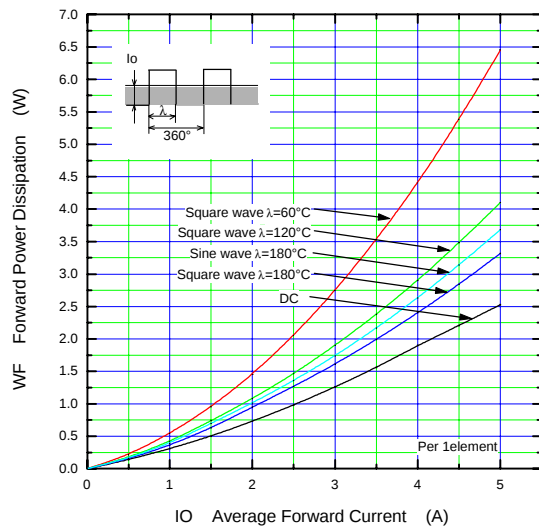
Forward Characteristic (typ.)



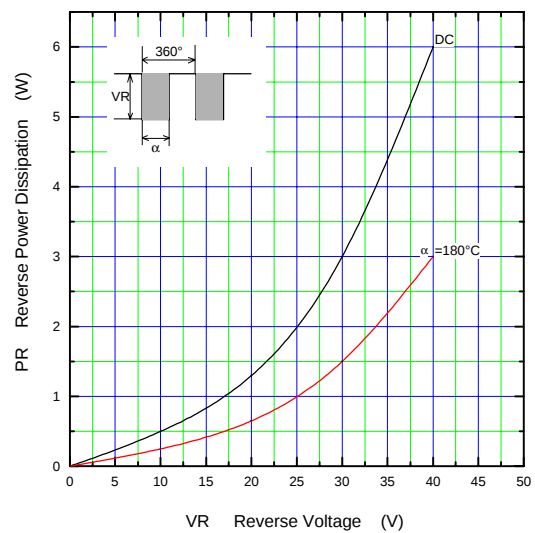
Reverse Characteristic (typ.)



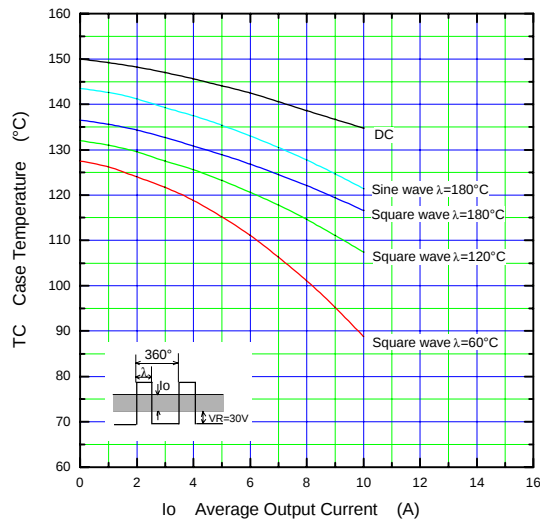
Forward Power Dissipation



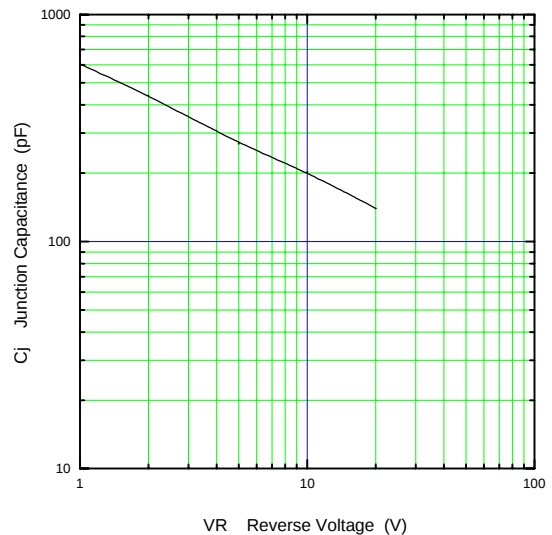
Reverse Power Dissipation



Current Derating (I_o - T_c)



Junction Capacitance Characteristic (typ.)



λ : Conduction angle of forward current for each rectifier element
 I_o : Output current of center-tap full wave connection

