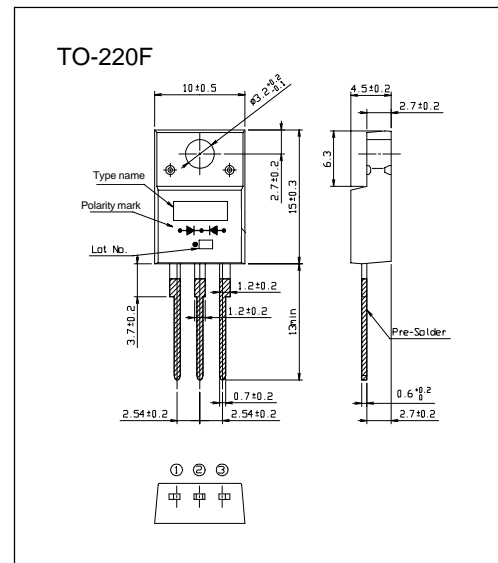


# YG838C03R (38A)

(30V / 38A)

## SCHOTTKY BARRIER DIODE

### Outline drawings, mm



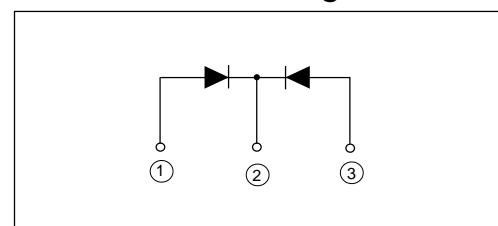
### Features

- 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	Rating	Unit
Repetitive peak reverse voltage	$V_{RRM}$		30	V
Repetitive peak surgereverse voltage	$V_{RSM}$	$t_w=500ns$ , $duty=1/40$	35	V
Average output current	$I_o$	Square wave, $duty=1/2$ $T_c=85^\circ C$	38*	A
Surge current	$I_{FSM}$	Sine wave 10ms	200	A
Operating junction temperature	$T_j$		-40 to +150	$^\circ C$
Storage temperature	$T_{stg}$		-40 to +150	$^\circ C$

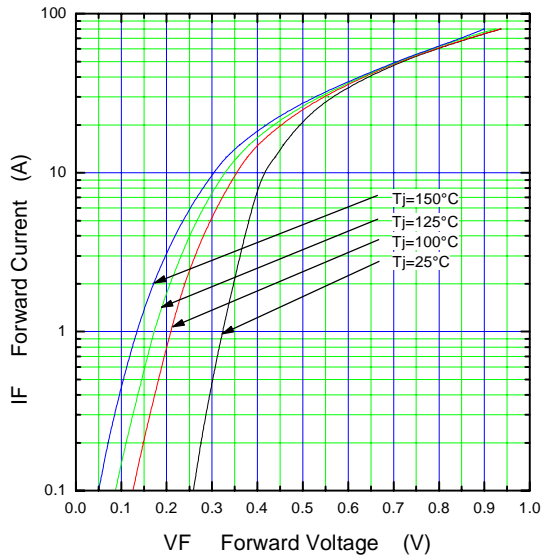
\* Average forward current of centertap full wave connection

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

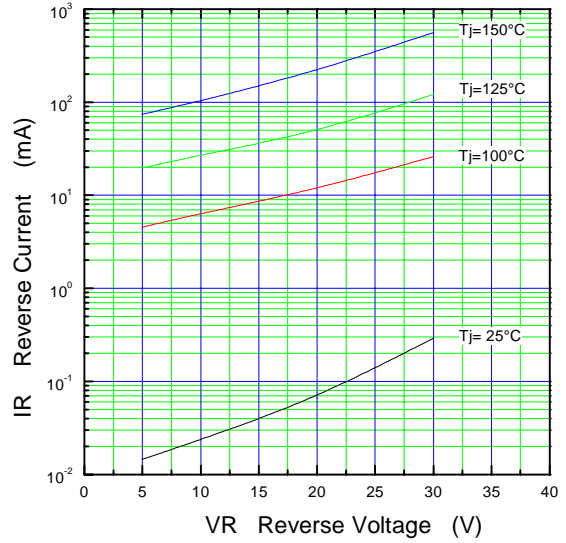
Item	Symbol	Conditions	Max.	Unit
Forward voltage drop	$V_{FM}$	$I_{FM}=12.5A$	0.45	V
Reverse current	$I_{RRM}$	$V_R=V_{RRM}$	10	mA
Thermal resistance	$R_{th(j-c)}$	Junction to case	2.0	$^\circ C/W$

■ Characteristics

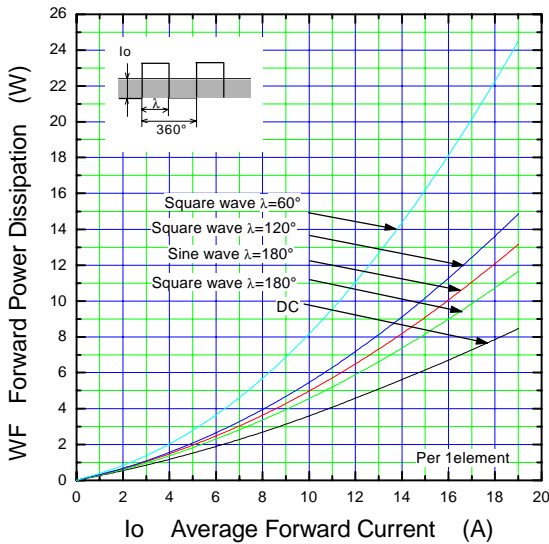
Forward Characteristic (typ.)



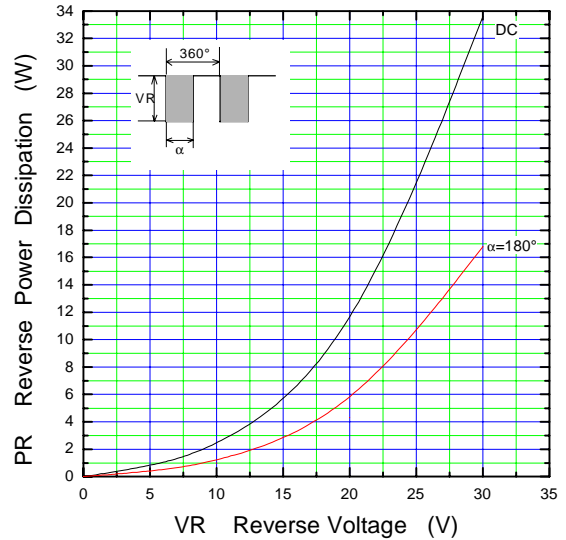
Reverse Characteristic (typ.)



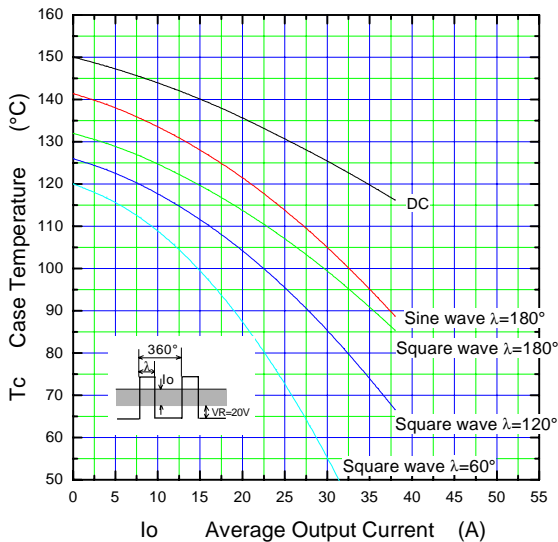
Forward Power Dissipation



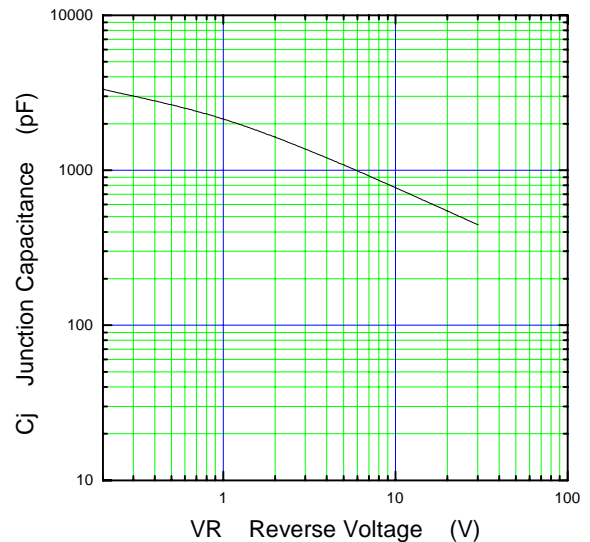
Reverse Power Dissipation



Current Derating (Io-Tc)



Junction Capacitance Characteristic (typ.)



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

