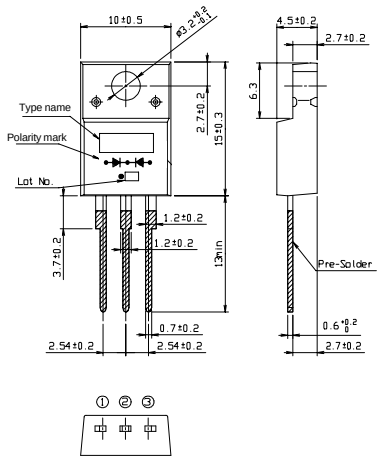
YG838C03R (38A) (30V / 38A)

SCHOTTKY BARRIER DIODE

■ Outline drawings, mm

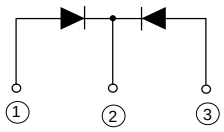
TO-220F



■ Features

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

■ Connection diagram



■ Applications

- High speed power switching

■ 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}	tw=500ns, duty=1/40	35	V
Average output current	Io	Square wave, duty=1/2 Tc=85°C	38*	A
Surge current	I_{FSM}	Sine wave 10ms	200	A
Operating junction temperature	T_j		-40 to +150	°C
Storage temperature	T_{stg}		-40 to +150	°C

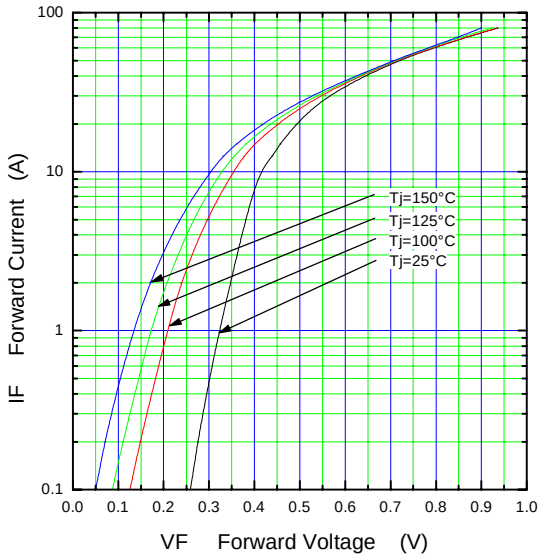
* Average forward current of centertap full wave connection

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

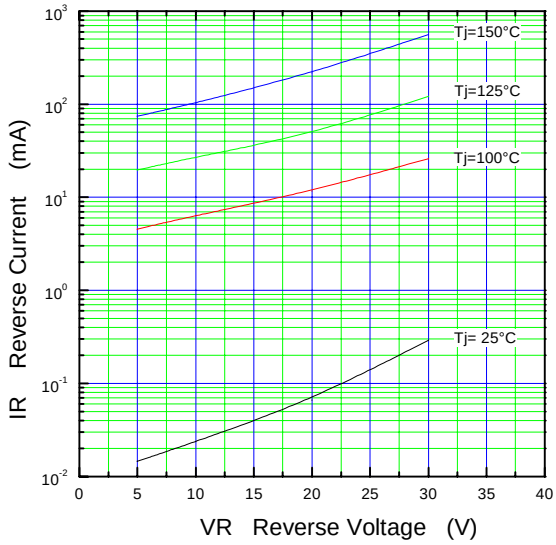
Item	Symbol	Conditions	Max.	Unit
Forward voltage drop	V_{FM}	I_{FM}=12.5A	0.45	V
Reverse current	I_{RRM}	$V_R=V_{RRM}$	10	mA
Thermal resistance	$R_{th(j-c)}$	Junction to case	2.0	°C/W

■ Characteristics

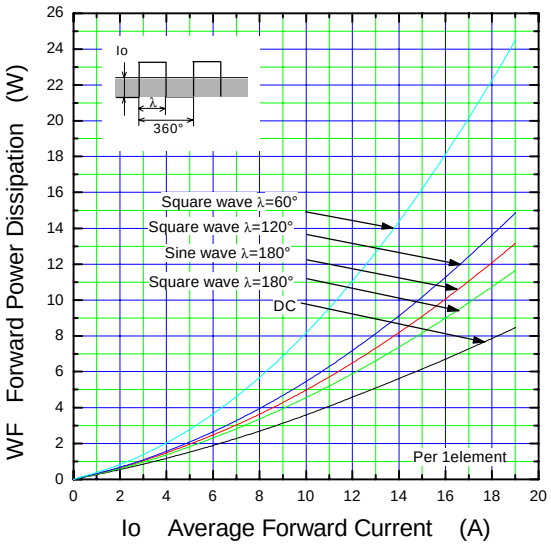
Forward Characteristic (typ.)



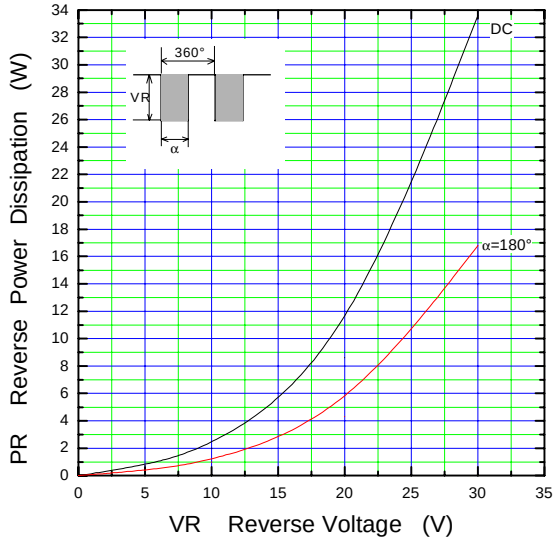
Reverse Characteristic (typ.)



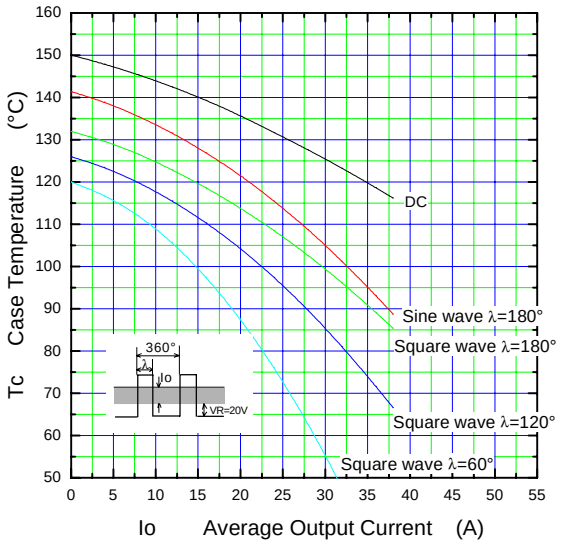
Forward Power Dissipation



Reverse Power Dissipation

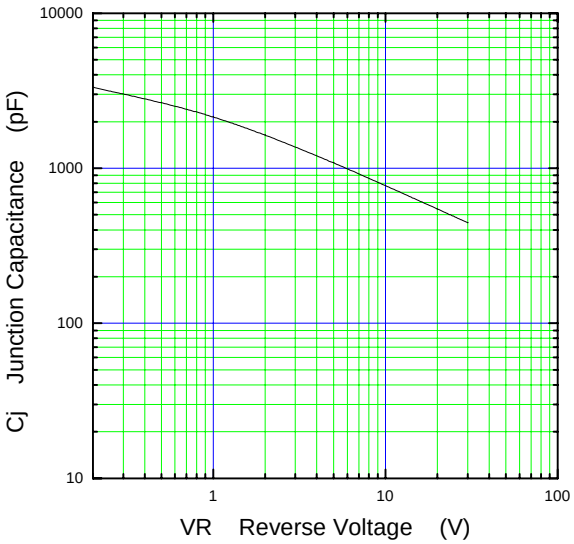


Current Derating (Io-Tc)

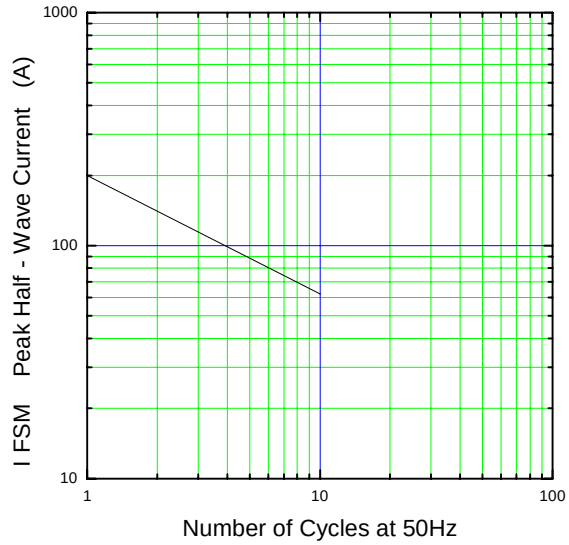


f : Conduction angle of forward current for each rectifier element
Io:Output current of center-tap full wave connection

Junction Capacitance Characteristic (typ.)



Surge Capability



Transient Thermal Impedance