Super fast rectifier
Reverse voltage 400 volts forward current 20 ampers

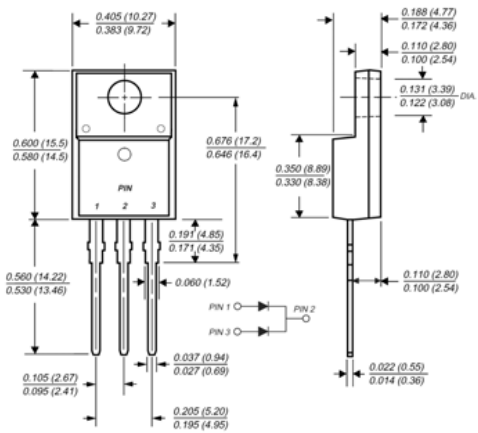
Features

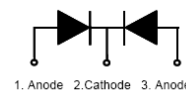
- Low power loss, high efficiency
- Low forward voltage, high current capability
- High surge capacity
- Super fast recovery times, high voltage

Mechanical Data

- Case: Full molded plastic package
- Terminals: Lead solderable per MIL-STD-202, Method 208
- Polarity: As marked
- Standard packaging: Any
- Weight: 0.08 ounces, 2.24 grams

TO-220F





Maximum Ratings and Electrical Characteristics

Ratings at 25°C ambient temperature unless otherwise specified.

Parameter	Symbol	SFF2040CT	Unit
Maximum repetitive peak reverse voltage	V_{RRM}	400	Volts
Maximum RMS voltage	V_{RMS}	400	Volts
Maximum DC blocking voltage	V_{DC}	400	Volts
Maximum average forward rectif ed current at T_C=105°C	$I_{F(AV)}$	20	Amps
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC Method)	I_{FSM}	125	Amps
Maximum instantaneous forward voltage at 10A per element	V_F	1.3	Volts
Maximum DC reverse current @T_C=25°C at rated DC blocking voltage @T_C=100°C	I_R	10 500	uA
Maximum reverse recovery time at I_F=0.5A, I_R=1.0A, I_{rr}=0.25A	t_{rr}	50	nS
Typical junction capacitance at 4.0V, 1MHz	C_J	62	pF
Typical thermal resistance	$R_{\theta JC}$	TO-220 : 2 TO-220F : 4	°C/W
Operating junction and storage temperature range	T_J, T_{STG}	-55 to +150	°C

Note:

1. Screw mounting with 4-40 screw，where washer diameteris≤4.9mm(0.19〃)
2. Pulse test:300us pulse width,1% duty cycle

RATINGS AND CHARACTERISTIC CURVES

(T_A = 25°C unless otherwise noted)

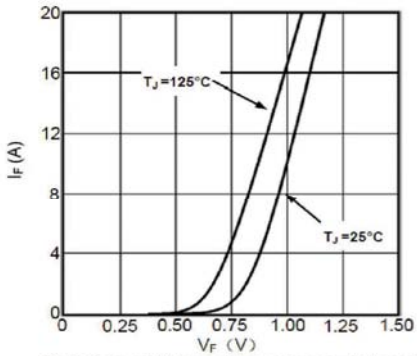


Fig1. Forward Voltage Drop vs Forward Current

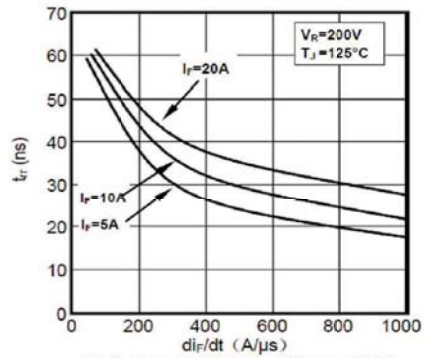


Fig2. Reverse Recovery Time vs di_F/dt

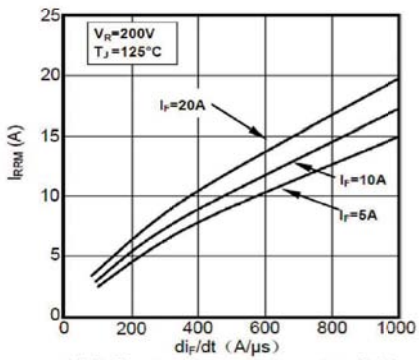


Fig3. Reverse Recovery Current vs di_F/dt

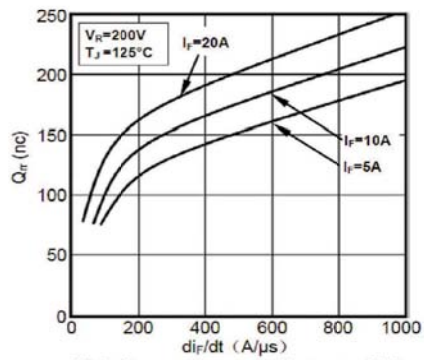


Fig4. Reverse Recovery Charge vs di_F/dt

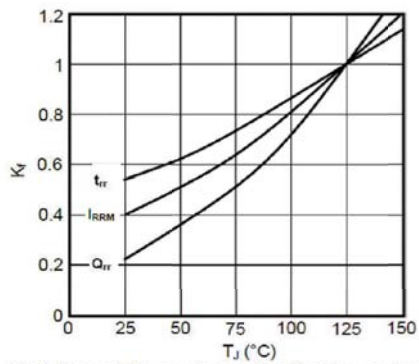


Fig5. Dynamic Parameters vs Junction Temperature

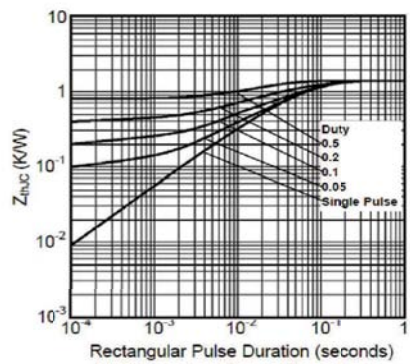


Fig6. Transient Thermal Impedance