沛倫股份有限公司
Compact Technology Corp.

S20U60FCT

Trench MOS Schottky Rectifier

REVERSE VOLTAGE - 60 Volts
FORWARD CURRENT - 20.0 Amperes

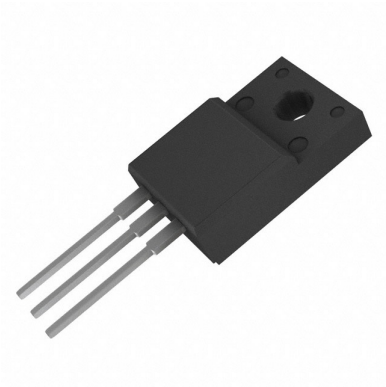
FEATURES

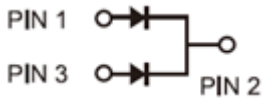
- Low power loss, high efficiency
- Low forward voltage drop
- High forward surge capability
- High frequency operation
- Excellent high temperature stability
- Trench MOS Schottky technology

MECHANICAL DATA

- Case: TO-220F
- Polarity: As marked
- Weight: Approximated 1.6 grams

TO-220





MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25℃ ambient temperature unless otherwise specified.
Single phase, half wave, 60Hz, resistive or inductive load.
For capacitive load, derate current by 20%

Characteristics	Symbol	Value		Unit
Maximum Repetitive Peak Reverse Voltage	V_{RRM}	60		V
RMS Reverse Voltage	V_{RMS}	42		V
Forward Voltage Drop	V_F	Typ.	Max.	V
I_F=5A (T$_J$=25℃)		0.43	-	
I_F=5A (T$_J$=125℃)		0.35	-	
I_F=10 A (T$_J$=25℃)		0.53	0.6	
I_F=10 A (T$_J$=125℃)		0.47	0.52	
Maximum Reverse Current at Rated V_{RRM}	I_R	Typ.	Max.	
T$_J$=25°C		30	150	μA
T$_J$=125°C		12	40	mA
Maximum Average Forward Rectified Current	I_O			A
Total device		20		
Per diode		10		
Peak Forward Surge Current, 8.3 ms Single Half Sine-wave Superimposed on Rated Load (JEDEC method)	I_{FSM}	150		A
Peak Repetitive Reverse Current at tp=2 μs, 1 kHz,	I_{RRM}	1.0		A
Operating and StorageTemperature Range	T_J, T_{STG}	-65 to +150		°C

Rating and Characteristic Curves

FIG.1 MAXIMUM FORWARD CURRENT DERATING CURVE

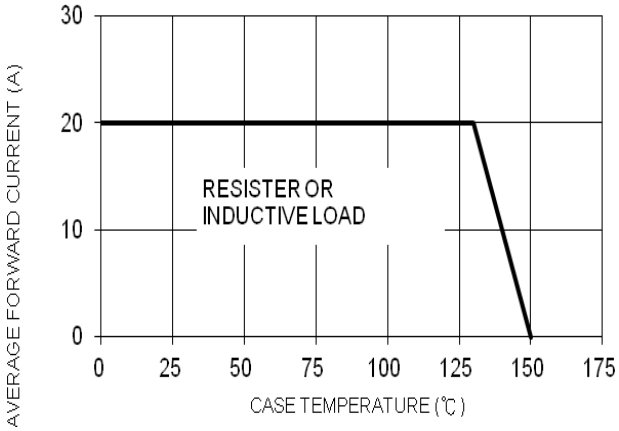


FIG. 2 MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT PER LEG

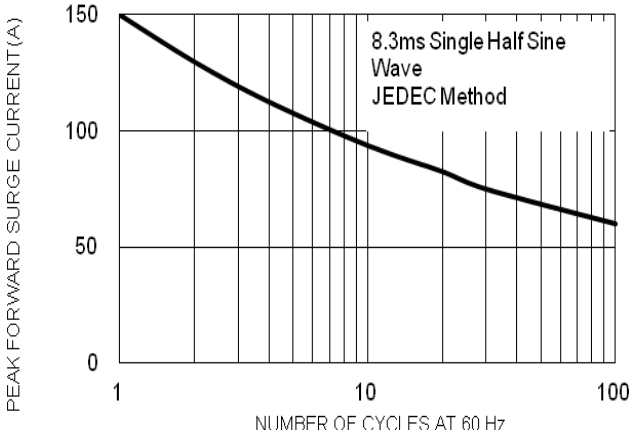


FIG. 3 TYPICAL FORWARD CHARACTERISTICS PER LEG

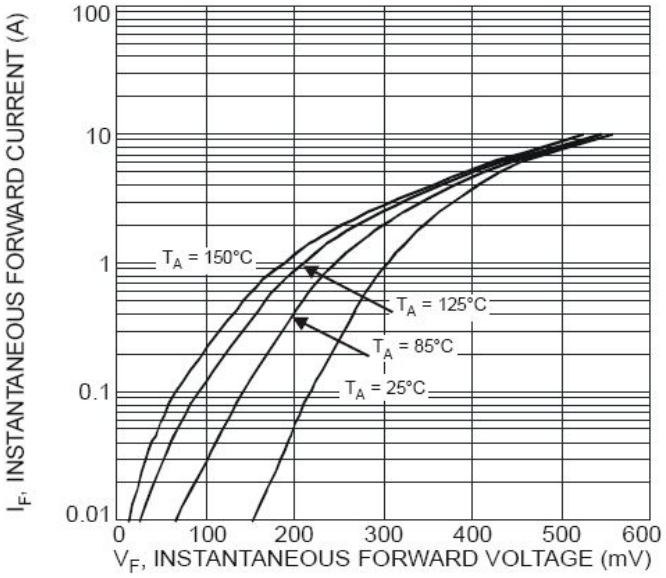


FIG. 4 TYPICAL REVERSE CHARACTERISTICS PER LEG