SECOS
Elektronische Bauelemente

SFL10D60
Voltage 600V
## 10.0 Amp Low Loss Ultrafast Rectifier

RoHS Compliant Product
A suffix of "-C" specifies halogen free

FEATURES

- Soft Reverse Recovery Diodes
- 150℃ Operating Junction Temperature
- Low Power Loss, High Efficiency
- Low Forward Voltage, High Current Capability
- Low Stored Charge Majority Carrier Conduction
- Plastic Material Used Carries Underwriters Laboratory Flammability Classification 94V-0

TO-220

ORDER INFORMATION

Part Number	Type
SFL10D60	Lead (Pb)-free
SFL10D60-C	Lead (Pb)-free and Halogen-free
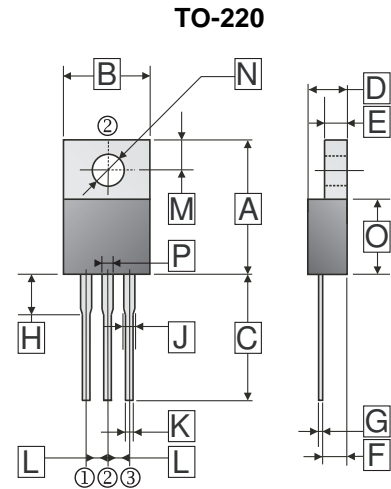
REF.	Millimeter Min.	Millimeter Max.	REF.	Millimeter Min.	Millimeter Max.
A	14.22	16.51	J	0.70	1.78
B	9.57	10.90	K	0.38	1.11
C	12.50	14.75	L	2.01	3.07
D	3.56	5.10	M	2.22	3.43
E	0.51	1.47	N	3.10	4.31
F	2.03	3.19	O	8.10	9.65
G	0.279	0.76	P	1.18 TYP.	
H	2.95	4.5			
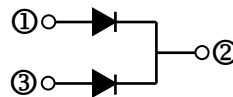
MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

(Rating 25℃ ambient temperature unless otherwise s pecified. Single phase half wave, 60Hz, resistive or inductive load. For capacitive load, de-rate current by 20%.)

| Characteristics		Symbol	Rating	Units
Peak Repetitive Reverse Voltage		V_{RRM}	600	V
Working Peak Reverse Voltage		V_{RWM}	600	V
DC Blocking Voltage		V_R	600	V
Average Rectifier Forward Current	Per Leg	$I_{F(AV)}$	5	A
	Per Device		10	A
Non-Repetitive Peak Surge Current @Surge applied at rate load conditions half-wave, single phase, 60Hz		I_{FSM}	50	A
Max. Instantaneous Forward Voltage @I_F=5A	T_J=25℃	V_F	1.35	V
	T_J=125℃		1.3	
Max. Instantaneous Reverse Current [1]	T_J=25℃	I_R	0.1	mA
	T_J=125℃		1	
Max. Reverse Recovery Time [2]		T_{RR}	100	nS
Typical Junction Capacitance [3]		C_J	14	pF
Typical Thermal Resistance		$R_{\theta JC}$	2	℃/W
Operating Junction and Storage Temperature Range		T_J, T_{STG}	150, -55~150	℃

Notes:
1. Pulse Test: Pulse Width=300μs, Duty Cycle≦2%.
2. I_F=0.5A, I_R=1A, I_{RR}=0.25A.
3. Measured at 1MHz and applied reverse voltage of 5V D.C.

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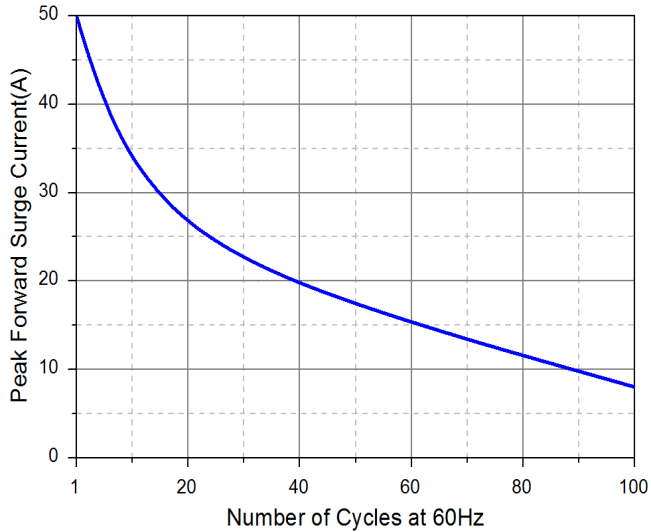
RATINGS AND CHARACTERISTIC CURVES

Typical Forward Current Derating Curve
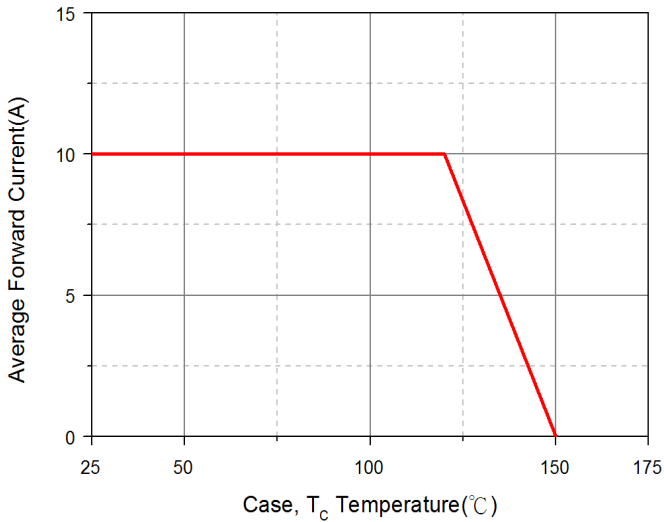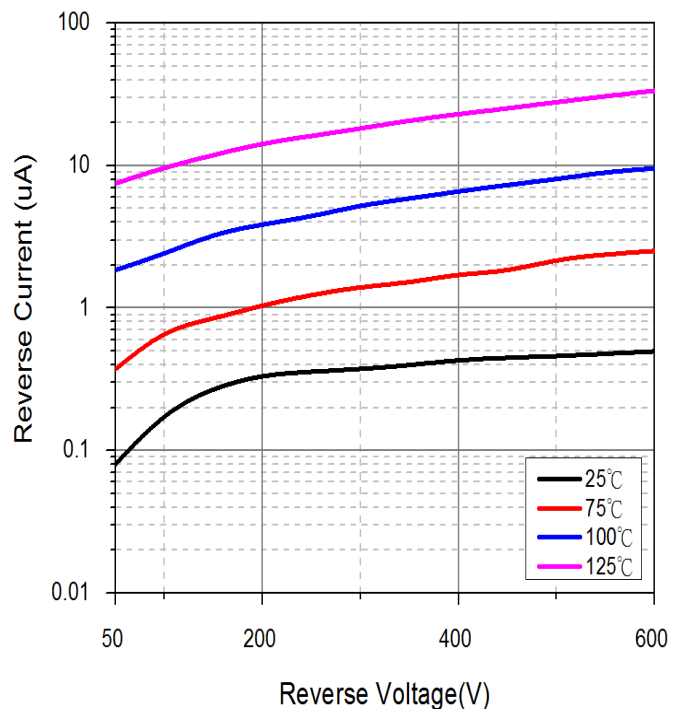

Typical Forward Characteristic
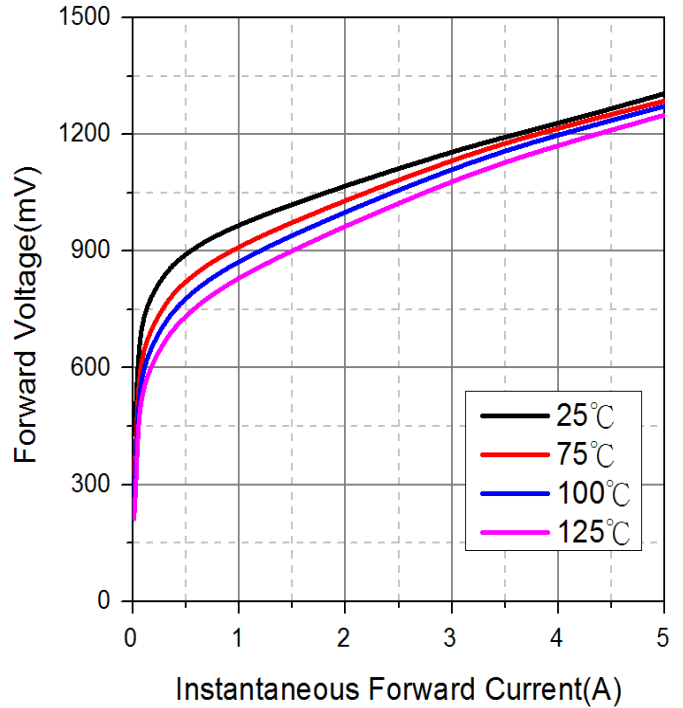
Maximum Non-Repetitive Forward Surge Current

Typical Junction Capacitance

Typical Reverse Characteristic

25-Aug-2021 Rev. B