

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

FEATURES

- High Surge Capacity
- 150°C Operating Junction Temperature
- Low Power Loss, High Efficiency
- High-Switching Speed 50 Nanosecond Recovery Time
- Low Forward Voltage, High Current Capability
- Low Stored Charge Majority Carrier Conduction
- Plastic Material Used Carries Underwriters Laboratory Flammability Classification 94V-0

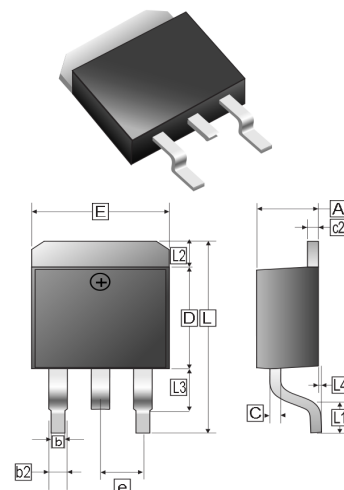
ORDER INFORMATION

Part Number	Type
SF08U60DS	Lead (Pb)-free
SF08U60DS-C	Lead (Pb)-free and Halogen-free

PACKAGE INFORMATION

Package	MPQ	Leader Size
TO-263	0.8K	13 inch

TO-263(D²-PAK)



REF.	Millimeter		REF.	Millimeter	
	Min.	Max.		Min.	Max.
A	4.00	4.87	c2	1.07	1.65
b	0.51	1.01	b2	1.34 REF	
L4	0.00	0.30	D	8.0	9.65
C	0.30	0.74	e	2.54 REF	
L3	1.50 REF		L	14.6	16.1
L1	2.5 REF		L2	1.27 REF	
E	9.60	10.67			

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

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

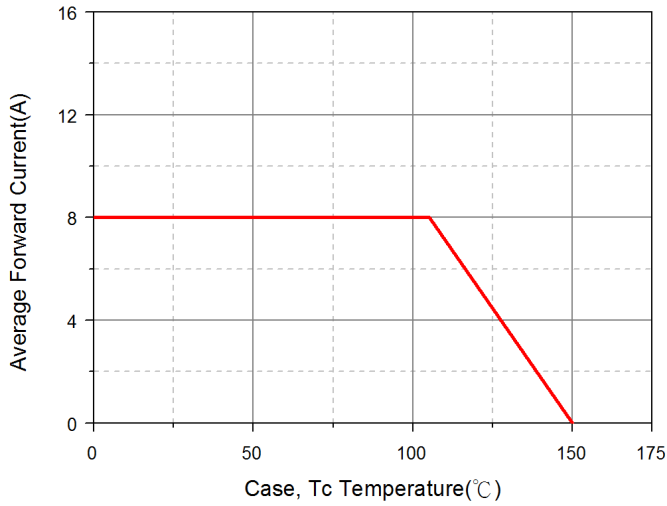
Characteristics	Symbol	Rating	Units
Peak Repetitive Reverse Voltage	V_{RRM}	600	V
Working Peak Reverse Voltage	V_{RWM}	600	V
DC Blocking Voltage	V_R	600	V
Average Rectifier Forward Current	$I_{F(AV)}$	8	A
Non-Repetitive Peak Surge Current@ Surge applied at rate load conditions half-wave, single phase, 60Hz	I_{FSM}	80	A
Max. Instantaneous Forward Voltage @ $I_F=8A$	$T_J=25^\circ C$	1.6	V
	$T_J=125^\circ C$	1.45	
Max. Instantaneous Reverse Current ¹	$T_J=25^\circ C$	5	uA
	$T_J=125^\circ C$	500	
Reverse Recovery Time ²	T_{RR}	50	nS
Typical Junction Capacitance ³	C_J	27	pF
Typical Thermal Resistance ⁴	$R_{\theta JC}$	3	°C / W
Operating Junction and Storage Temperature Range	T_J, T_{STG}	-55~150	°C

Notes:

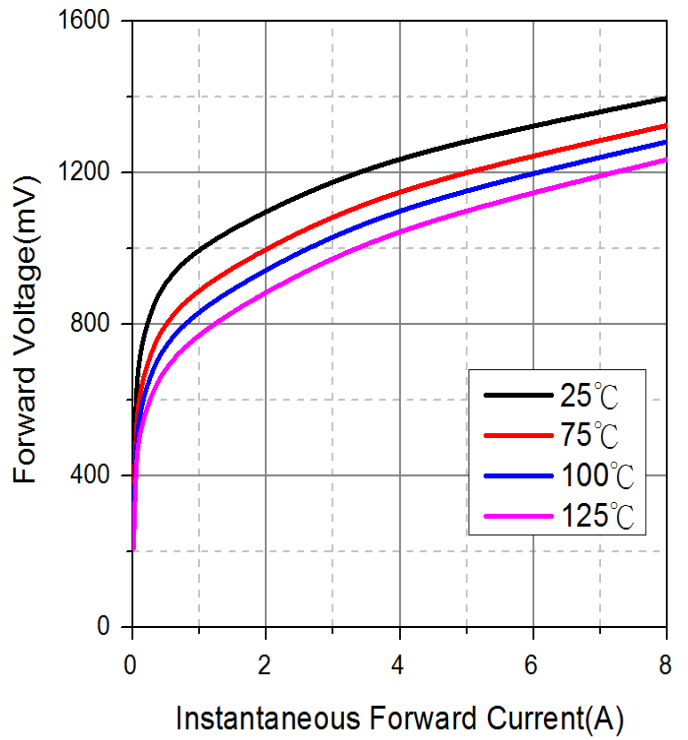
1. Pulse Test: Pulse Width=300µs, Duty Cycle≤2%.
2. $I_F=0.5A, I_R=1A, I_{RR}=0.25A$.
3. Measured at 1MHz and applied reverse voltage of 5V D.C.
4. Surface mounted on 10cm x 10cm x 1mm copper pad area.

RATINGS AND CHARACTERISTIC CURVES

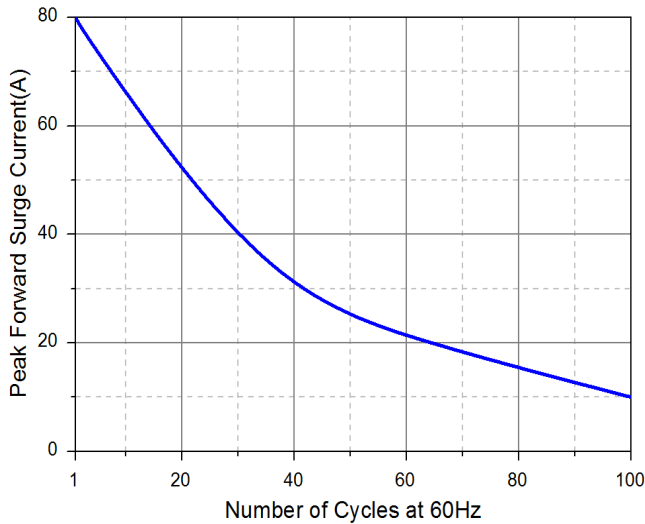
Typical Forward Current Derating Curve



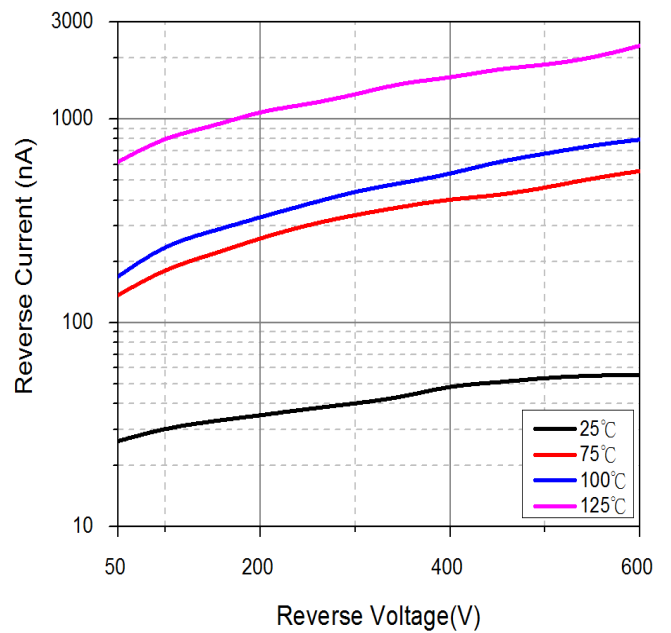
Typical Forward Characteristic



Maximum Non-Repetitive Forward Surge Current



Typical Reverse Characteristic



Typical Junction Capacitance

