

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

FEATURES

- Fast switching for high efficiency
- 150°C Operating Junction Temperature
- Low Power Loss, High Efficiency
- High-Switching Speed 30 Nanosecond Recovery Time
- Low Forward Voltage, High Current Capability
- Plastic Material Used Carries Underwriters Laboratory Flammability Classification 94V-0

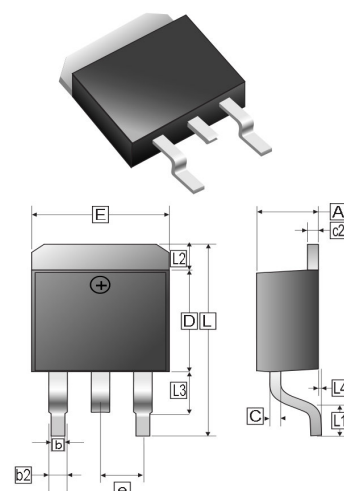
ORDER INFORMATION

Part Number	Type
SF10T40D	Lead (Pb)-free
SF10T40D-C	Lead (Pb)-free and Halogen-free

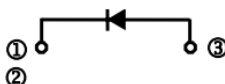
PACKAGE INFORMATION

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%.)

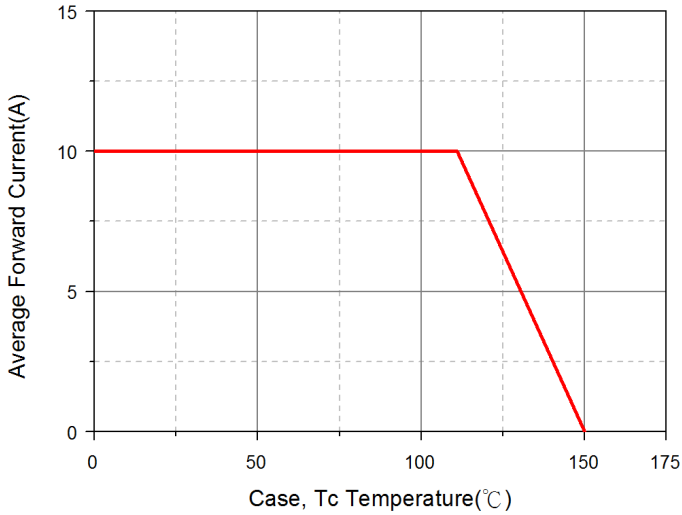
Parameter	Symbol	Rating	Unit
Peak Repetitive Reverse Voltage	V_{RRM}	400	V
Working Peak Reverse Voltage	V_{RWM}	400	V
DC Blocking Voltage	V_R	400	V
Average Rectifier Forward Current	$I_{F(AV)}$	10	A
Non-Repetitive Peak Surge Current @ Surge applied at rate load conditions half-wave, single phase, 60Hz	I_{FSM}	90	A
Max. Instantaneous Forward Voltage @ $I_F=10A$	V_F	1.3	V
Max. Instantaneous Reverse Current ²	I_R	$T_J=25^\circ C$	5
		$T_J=100^\circ C$	20
Reverse Recovery Time ³	T_{RR}	30	nS
Typical Junction Capacitance ¹	C_J	45	pF
Typical Thermal Resistance from Junction to Case ⁴	$R_{\theta JC}$	3	°C / W
Operating Junction and Storage Temperature Range	T_J, T_{STG}	150, -55~150	°C

Notes:

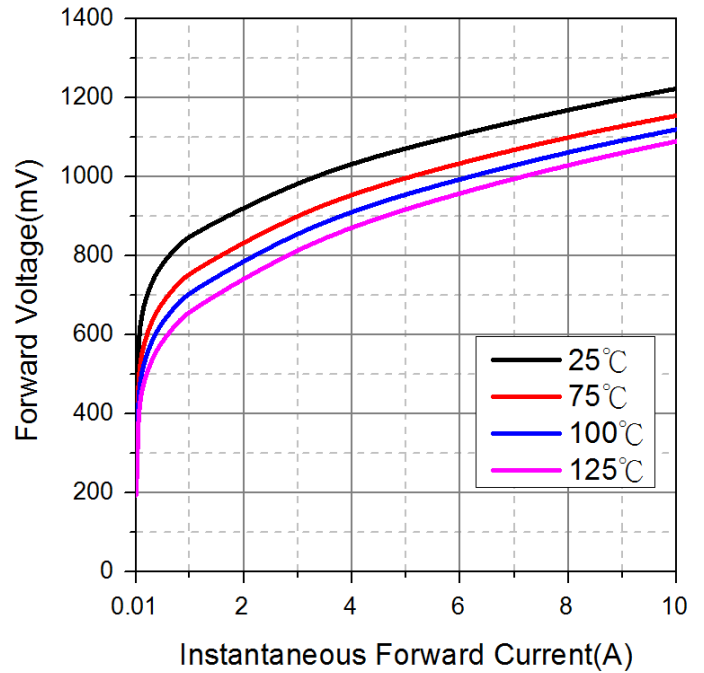
1. Measured at 1MHz and applied reverse voltage of 5V D.C.
2. Pulse Test: Pulse Width=300µs, Duty Cycle ≤2%.
3. $I_F=0.5A$, $I_R=1A$, $I_{RR}=0.25A$.
4. Surface mounted on 10cm x 10cm x 1mm copper pad area.

RATINGS AND CHARACTERISTIC CURVES

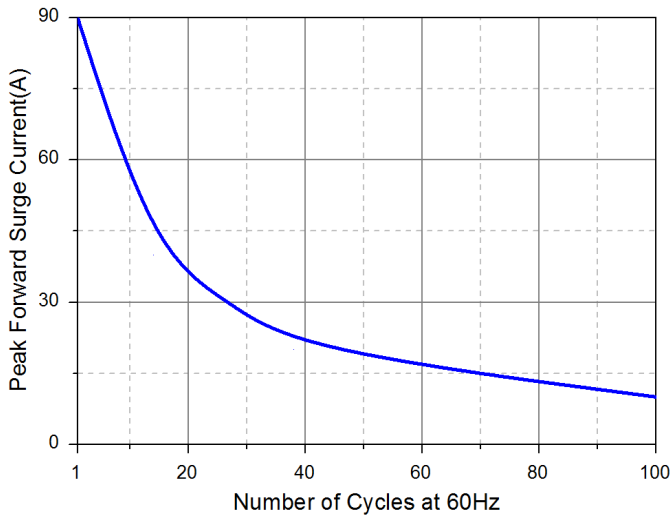
Typical Forward Current Derating Curve



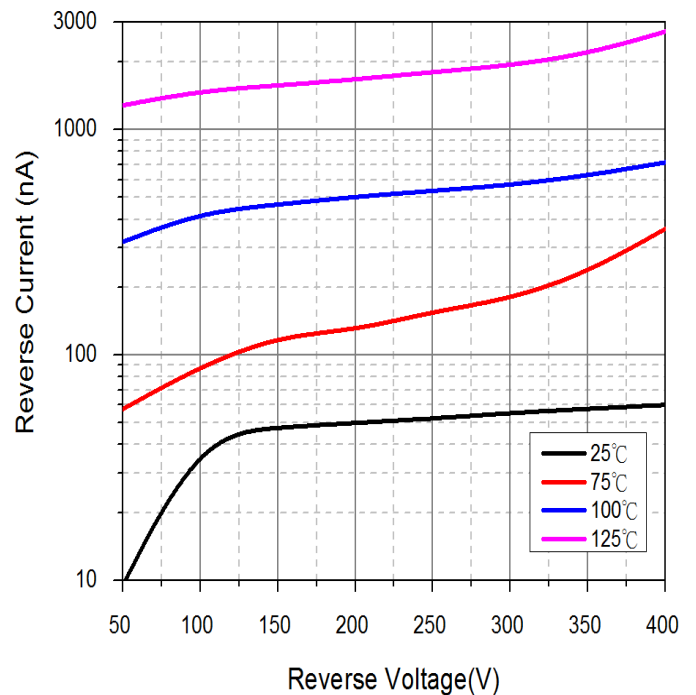
Typical Forward Characteristic



Maximum Non-Repetitive Forward Surge Current



Typical Reverse Characteristic



Typical Junction Capacitance

