Elektronische Bauelemente

SMPH15150L-C

Voltage 150V, 15A

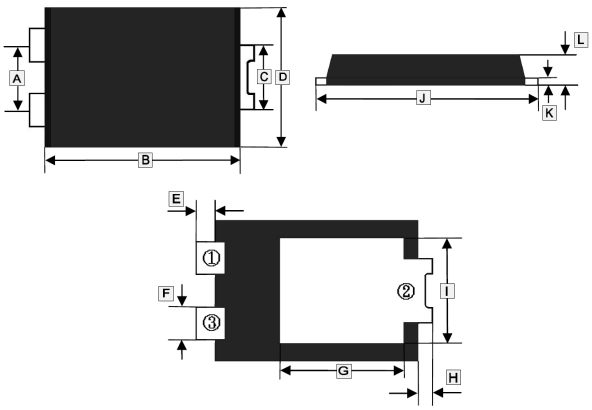
Low V_F & Low I_R Schottky Barrier Rectifier

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

FEATURES

- Low Forward Voltage and Low Reverse Current
- High Thermal Reliability
- Patented Super Barrier Rectifier Technology
- High Forward Surge Capability
- Ultra Low Power Loss and High Efficiency
- Plastic Material-UL Flammability 94V-0

TO-277D



REF.	Millimeter Min.	Millimeter Max.	REF.	Millimeter Min.	Millimeter Max.
A	2.00	2.20	G	4.05 TYP.	
B	5.90	6.30	H	1.125 TYP.	
C	1.85	2.25	I	3.55	3.95
D	4.10	4.50	J	6.30	6.70
E	0.206 TYP.		K	0.15	0.35
F	1.00	1.40	L	1.00	1.40

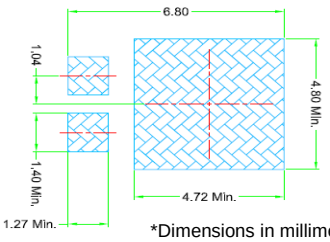
PACKAGE INFORMATION

Package	MPQ	Leader Size
TO-277D	5K	13 inch

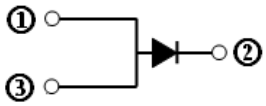
PACKAGE INFORMATION

Part Number	Type
SMPH15150L-C	Lead (Pb)-free and Halogen-free

Mounting Pad Layout



*Dimensions in millimeters



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%.)

Parameter	Symbol	Rating	Unit
Maximum Recurrent Peak Reverse Voltage	V_{RRM}	150	V
Working Peak Reverse Voltage	V_{RSM}	150	V
Maximum DC Blocking Voltage	V_{DC}	150	V
Maximum Average Forward Rectified Current	I_F	15	A
Peak Forward Surge Current @8.3ms single half sine-wave superimposed on rated load (JEDEC method)	I_{FSM}	200	A
Typical Thermal Resistance from Junction-Ambient	$R_{\theta JA}$	110	℃/W
Typical Thermal Resistance from Junction-Lead	$R_{\theta JL}$	3.5	
Operating & Storage Temperature Range	T_J, T_{STG}	-40~150	℃

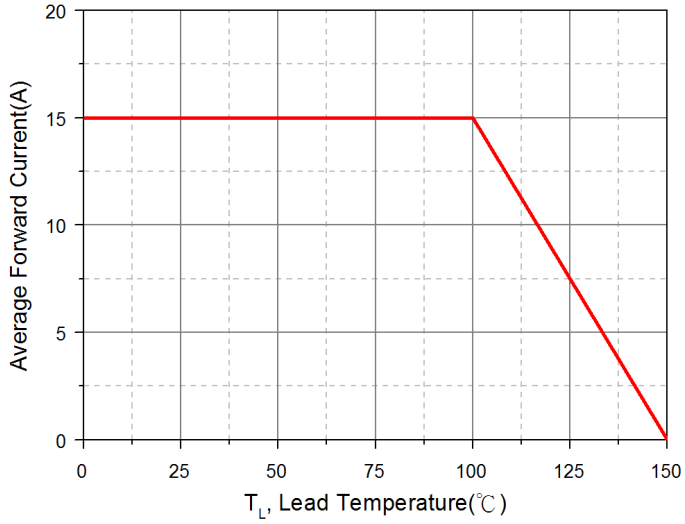
ELECTRICAL CHARACTERISTICS

Parameter	Symbol	Typ.	Max.	Unit	Test Condition
Maximum Instantaneous Forward Voltage	V_F	0.67	0.72	V	I_F=3A, T_J=25℃
		0.77	0.81		I_F=10A, T_J=25℃
		0.82	0.92		I_F=15A, T_J=25℃
		0.68	-		I_F=15A, T_J=125℃
Maximum DC Reverse Current [1] @Rated DC Blocking Voltage	I_R	0.4	10	uA	T_J=25℃
		0.02	2	mA	T_J=100℃
Typical Junction Capacitance [2]	C_J	670	-	pF	

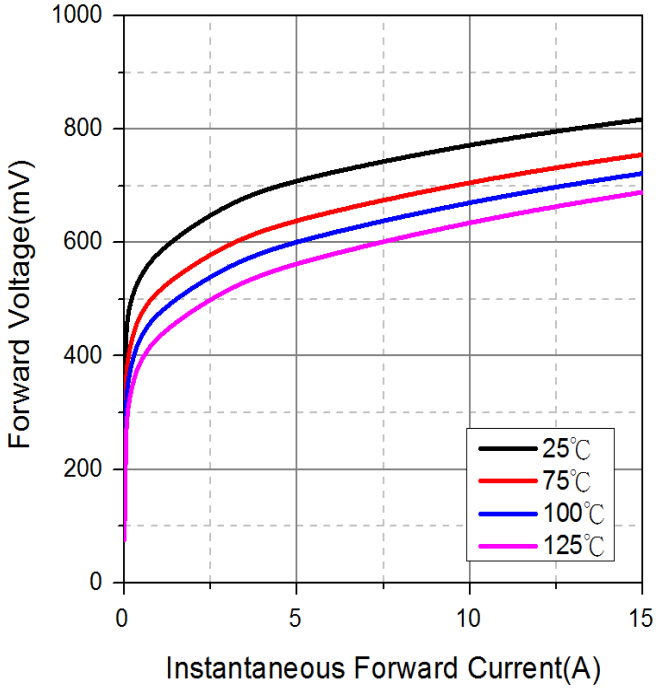
Notes:
1. Pulse Test: Pulse width=300μs, duty cycle≦2%.
2. Measured at 1MHz and applied reverse voltage of 5V D.C.

RATINGS AND CHARACTERISTIC CURVES

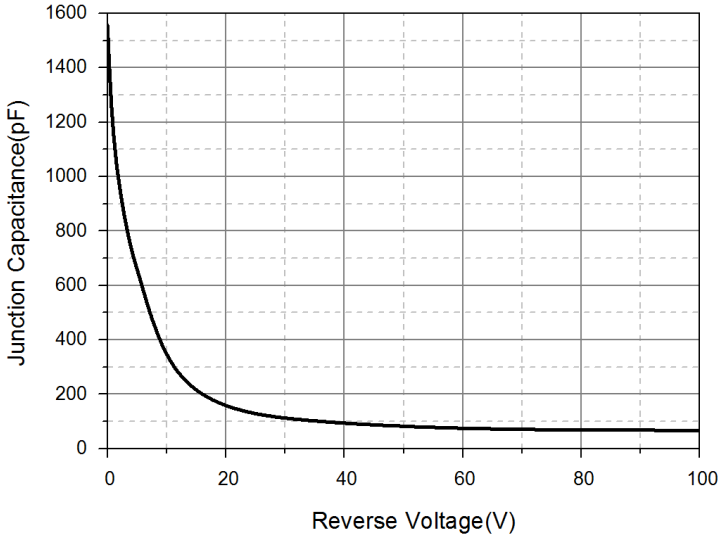
Typical Forward Current Derating Curve



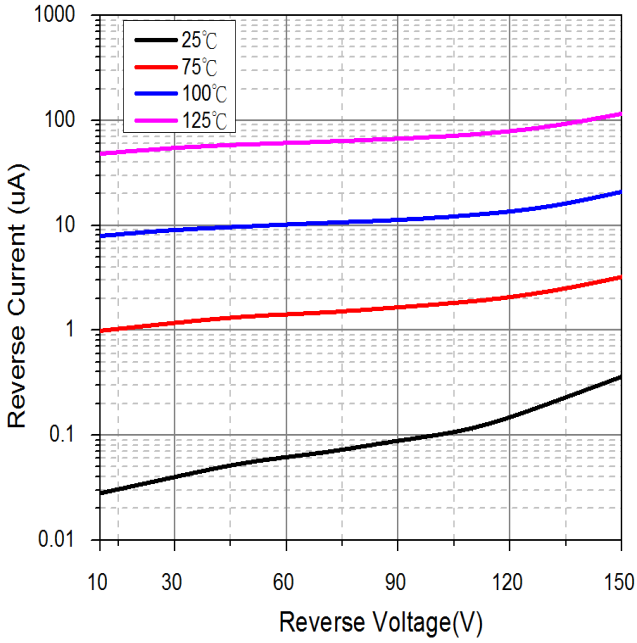
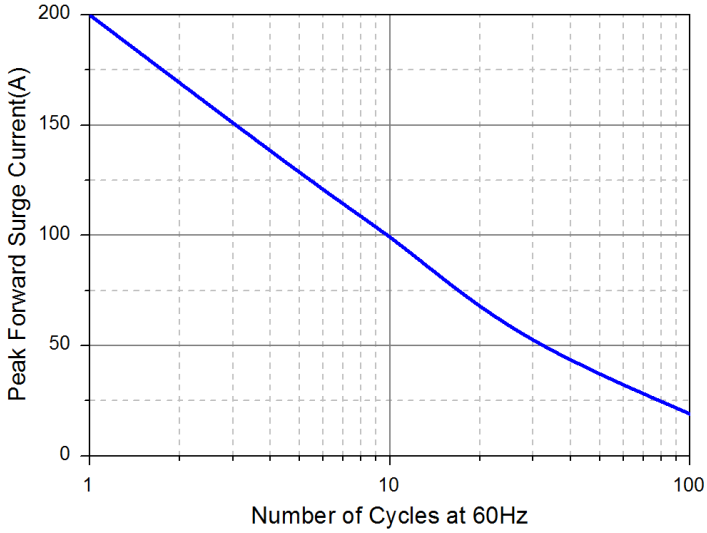
Typical Forward Characteristic



Typical Junction Capacitance



Typical Reverse Characteristic



Maximum Non-Repetitive Forward Surge Current