

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

FEATURES

- Schottky Barrier chip
- High thermal reliability
- Patented Super Barrier Rectifier Technology
- High forward surge capability
- Ultra low power loss and high efficiency
- Excellent high temperature stability
- Plastic material-UL flammability 94V-0

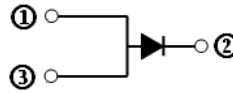
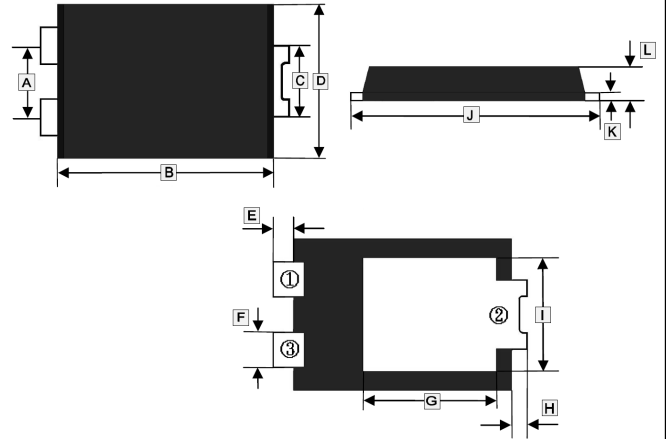
PACKAGE INFORMATION

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

PACKAGE INFORMATION

Part Number	Type
SMPD15150L-C	Lead (Pb)-free and Halogen-free

TO-277D



REF.	Millimeter		REF.	Millimeter	
	Min.	Max.		Min.	Max.
A	1.65	1.95	G	3.25	3.85
B	5.3	5.5	H	0.45	0.65
C	1.7	1.9	I	2.9	3.2
D	3.8	4.2	J	6.4	6.6
E	0.45	0.65	K	0.3	0.45
F	0.8	1.0	L	1.0	1.2

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

($T_A=25^\circ\text{C}$, unless otherwise specified. Single phase, half wave, 60Hz, resistive or inductive load.
For capacitive load, de-rate current by 20%.)

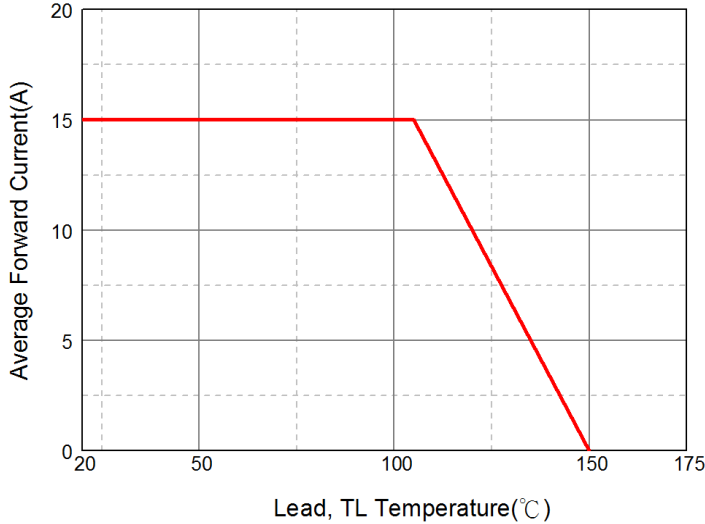
Parameter	Symbol	Rating	Unit
Maximum Peak Repetitive Reverse Voltage	V_{RRM}	150	V
Maximum Working Peak Reverse Voltage	V_{RWM}	150	V
Maximum DC Blocking Voltage	V_{DC}	150	V
Maximum RMS Rectified Voltage	V_{RMS}	105	V
Maximum Average Rectified Output Current	I_o	15	A
Non-Repetitive Peak Forward Surge Current @8.3ms single half sine-wave, superimposed on rated load (JEDEC method)	I_{FSM}	250	A
I^2t Rating for Fusing @ $t < 8.3\text{ms}$	I^2t	259.375	A^2S
Typical Thermal Resistance from Junction-Ambient	$R_{\theta JA}$	110	$^\circ\text{C/W}$
Typical Thermal Resistance from Junction-Lead ²	$R_{\theta JL}$	3.5	
Operating Junction & Storage Temperature Range	T_J, T_{STG}	150, -55~150	$^\circ\text{C}$

ELECTRICAL CHARACTERISTICS

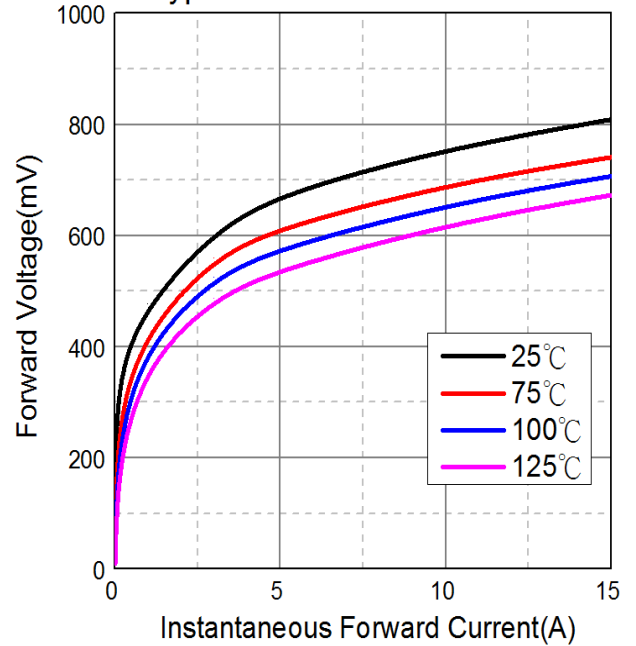
Parameter	Symbol	Typ.	Max.	Unit	Test Condition
Forward Voltage Drop	V_F	0.48	-	V	$I_F=1\text{A}, T_A=25^\circ\text{C}$
		0.68	-		$I_F=5\text{A}, T_A=25^\circ\text{C}$
		0.8	0.85		$I_F=15\text{A}, T_A=25^\circ\text{C}$
		0.66	-		$I_F=15\text{A}, T_A=125^\circ\text{C}$
Peak Reverse Current at Rated DC Blocking Voltage	I_R	-	0.3	mA	$T_A=25^\circ\text{C}$
		-	15		$T_A=100^\circ\text{C}$
		7.5	-		$T_A=125^\circ\text{C}$

CHARACTERISTIC CURVES

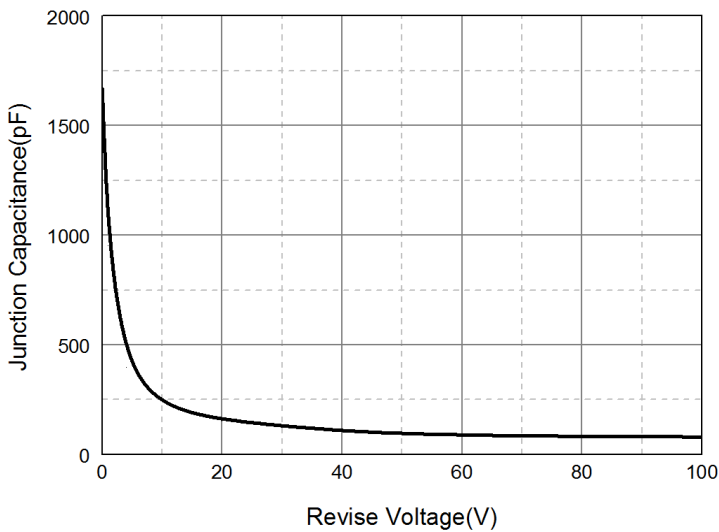
Typical Forward Current Derating Curve



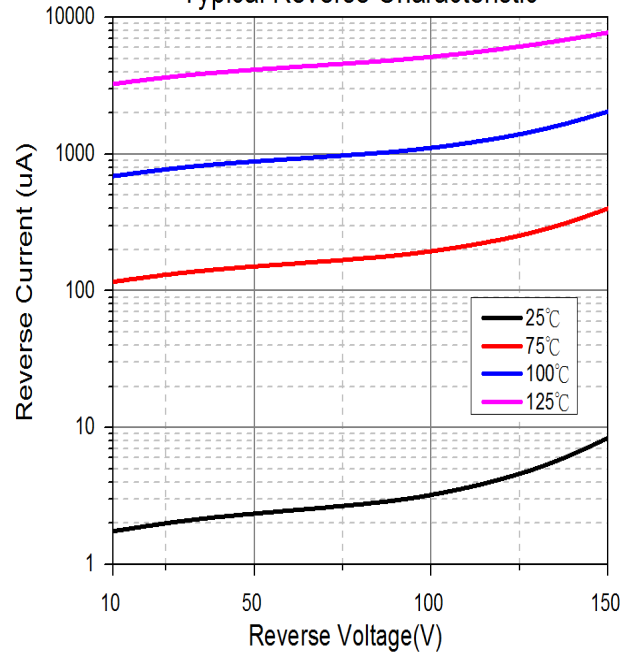
Typical Forward Characteristic



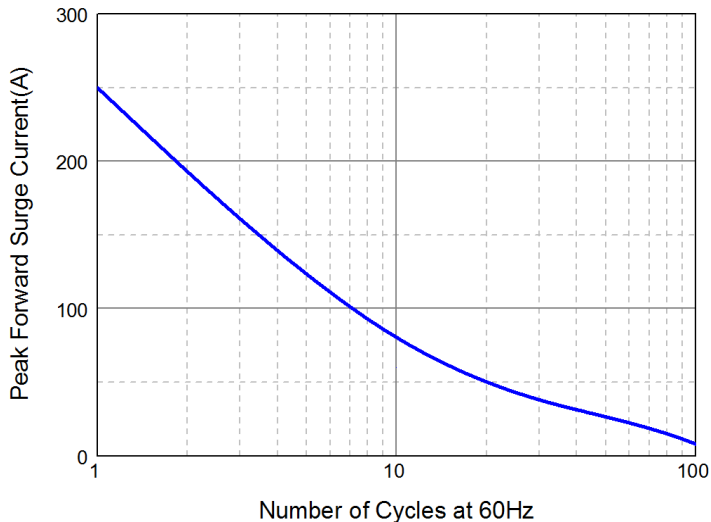
Typical Junction Capacitance



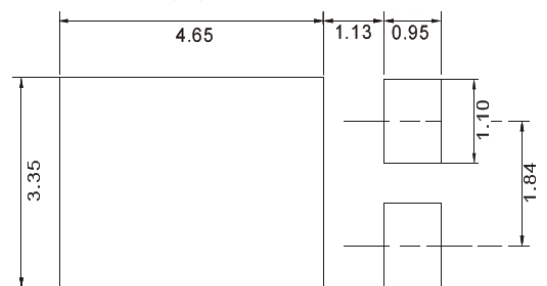
Typical Reverse Characteristic



Maximum Non-Repetitive Forward Surge Current



Mounting Pad Layout



*Dimensions in millimeters