Elektronische Bauelemente

SMPD1560L

60V, 15A

Low VF Schottky Barrier Rectifier

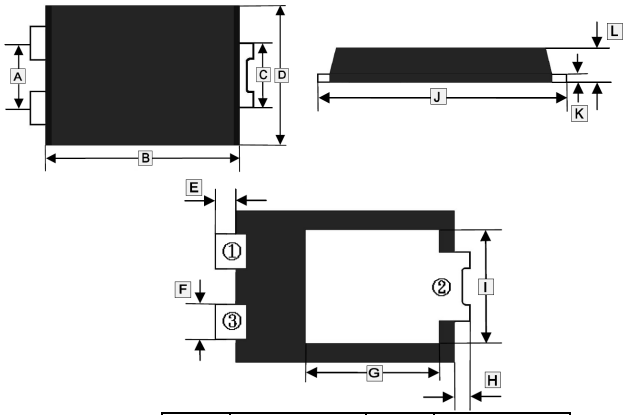
RoHS Compliant Product

A suffix of "-C" specifies halogen free

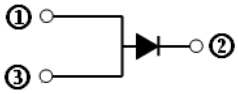
FEATURES

- 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

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



PACKAGE INFORMATION

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

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

(T_A=25°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 Recurrent Peak Reverse Voltage	V_{RRM}	60	V
Working Peak Reverse Voltage	V_{RSM}	60	V
Maximum DC Blocking Voltage	V_{DC}	60	V
Maximum Average Forward Rectified Current	I_F	15	A
Peak Forward Surge Current, 8.3 ms single half sine-wave Superimposed on rated load (JEDEC method)	I_{FSM}	250	A
Voltage Rate of Chance (Rated V_R)	dv/dt	10000	V / μs
Typical Thermal Resistance from Junction to Ambient	$R_{\theta JA}$	80	°C / W
Typical Thermal Resistance from Junction to Lead	$R_{\theta JL}$	5	°C / W
Operating and Storage Temperature Range	T_J,T_{STG}	150, -55~150	°C

ELECTRICAL CHARACTERISTICS

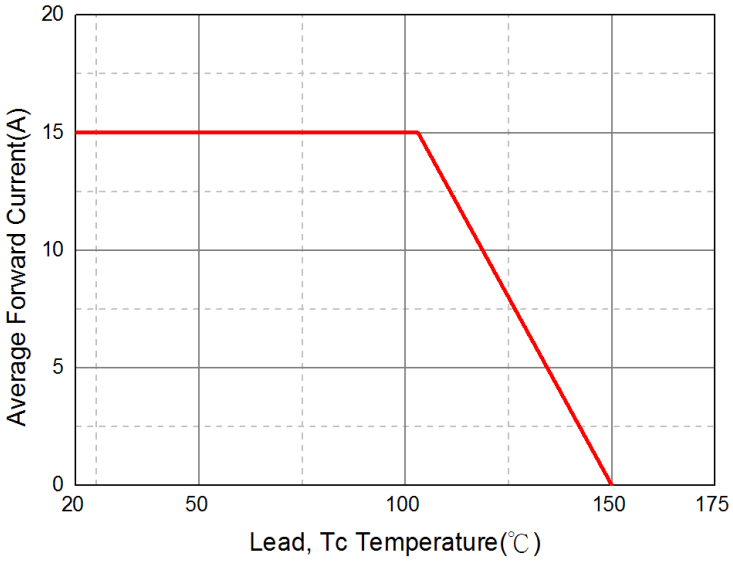
Parameter	Symbol	Typ.	Max.	Unit	Test Condition
Maximum Instantaneous Forward Voltage	V_F	0.37	0.41	V	I_F=3A, T_J=25°C
		0.41	0.46		I_F=5A, T_J=25°C
		0.49	0.53		I_F=10A, T_J=25°C
		0.58	0.62		I_F=15A, T_J=25°C
		0.56	-		I_F=15A, T_J=125°C
Maximum DC Reverse Current at Rated DC Blocking Voltage [2]	I_R	-	0.5	mA	T_J=25°C
		-	20		T_J=100°C
Typical Junction Capacitance [1]	C_J	520	-	pF	

Notes:

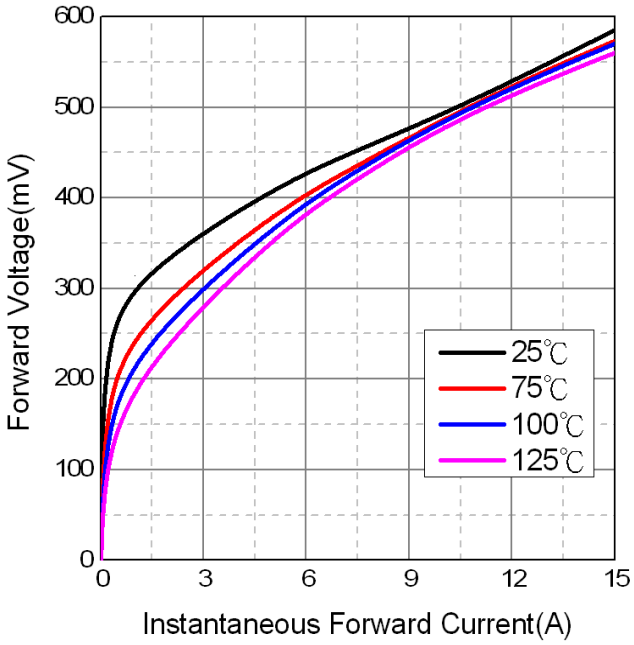
1. Measured at 1MHz and applied reverse voltage of 5.0V D.C.
2. Pulse Test：Pulse Width = 300 μs, Duty Cycle ≦ 2.0%.

RATINGS AND CHARACTERISTIC CURVES

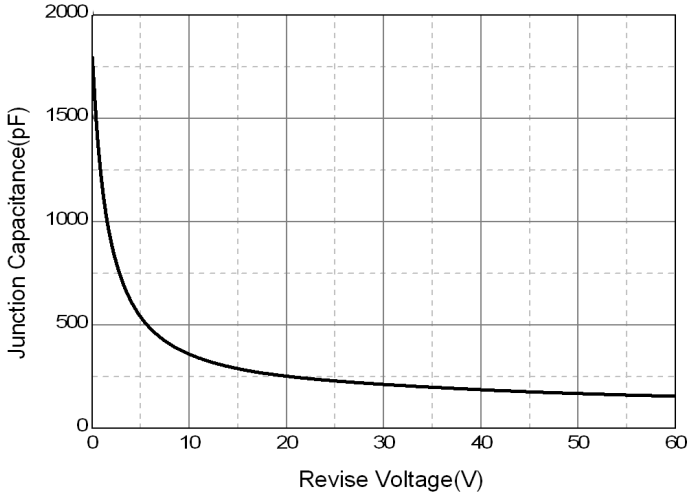
Typical Forward Current Derating Curve



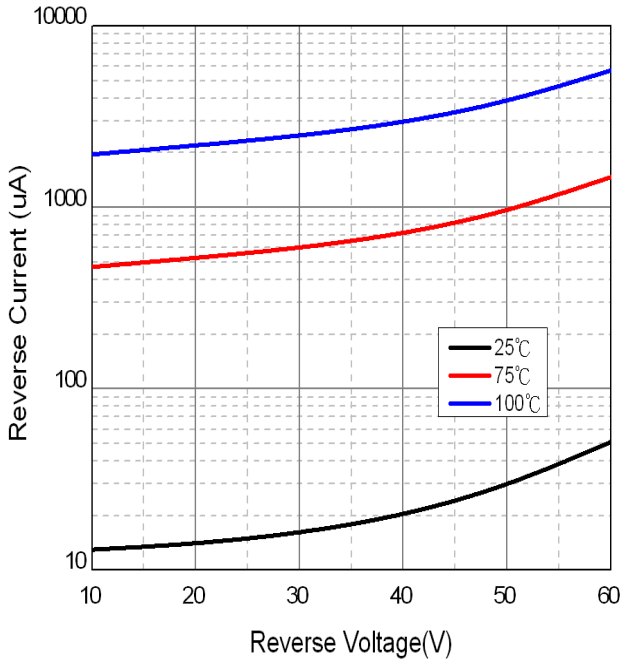
Typical Forward Characteristic



Typical Junction Capacitance



Typical Reverse Characteristic



Maximum Non-Repetitive Forward Surge Current