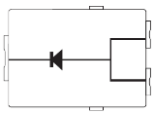
SBM860UPC

Surface Mount Extreme Low V_F Schottky Barrier Rectifier

Voltage	60 V	Current	8 A

TO-277C



Features

- Extreme low forward voltage drop
- Low power loss, high efficiency
- Lead free in compliance with EU RoHS 2.0
- Green molding compound as per IEC 61249 standard

Mechanical Data

- Case : TO-277C package
- Terminals : Solderable per MIL-STD-750, Method 2026
- Approx. Weight : 0.11 grams

Maximum Ratings and Thermal Characteristics (T_A = 25 °C unless otherwise noted)

PARAMETER		SYMBOL	LIMIT	UNITS
Maximum Recurrent Peak Reverse Voltage		V_{RRM}	60	V
Maximum RMS Voltage		V_{RMS}	42	V
Maximum DC Blocking Voltage		V_{DC}	60	V
Maximum Average Forward Rectified Current		$I_{F(AV)}$	8	A
Peak Forward Surge Current : 8.3 ms single half sine-wave superimposed on rated load		I_{FSM}	200	A
Typical Junction Capacitance Measured at 1 MHz And Applied V_R = 4 V		C_J	400	pF
Typical Thermal Resistance	(Note 1)	$R_{\theta JA}$	65	°C/W
	(Note 2)	$R_{\theta JC}$	1.3	
	(Note 2)	$R_{\theta JL}$	12.6	
Operating Junction Temperature Range		T_J	-55~150	°C
Storage Temperature Range		T_{STG}	-55~150	°C

SBM860UPC

Electrical Characteristics (T_A = 25 °C unless otherwise noted)

PARAMETER	SYMBOL	TEST CONDITION	MIN.	TYP.	MAX.	UNITS
Forward Voltage	V_F	I_F = 0.1 A, T_J = 25 °C	-	0.21	0.26	V
		I_F = 1 A, T_J = 25 °C	-	0.29	0.35	
		I_F = 4 A, T_J = 25 °C	-	0.39	0.44	
		I_F = 8 A, T_J = 25 °C	-	0.47	0.53	
		I_F = 0.1 A, T_J = 125 °C	-	0.1	0.15	
		I_F = 1 A, T_J = 125 °C	-	0.2	0.25	
		I_F = 4 A, T_J = 125 °C	-	0.34	0.39	
Reverse current(Note 3)	I_R	V_R = 48 V, T_J = 25 °C	-	55	500	uA
		V_R = 60 V, T_J = 25 °C	-	0.1	0.25	mA
		V_R = 60 V, T_J = 125 °C	-	20	200	

NOTES :

1. Mounted on an FR4 PCB, single-sided copper, standard footprint.
2. Mounted on a FR4 PCB, single-sided copper, with 100 cm^2 copper pad area.
3. Short duration pulse test used to minimize self-heating effect.

SBM860UPC

TYPICAL CHARACTERISTIC CURVES

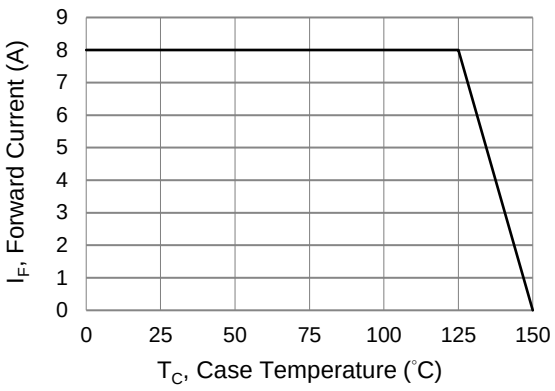


Fig.1 Forward Current Derating Curve

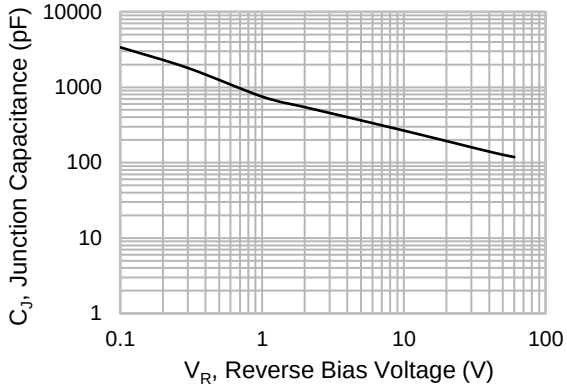


Fig.2 Typical Junction Capacitance

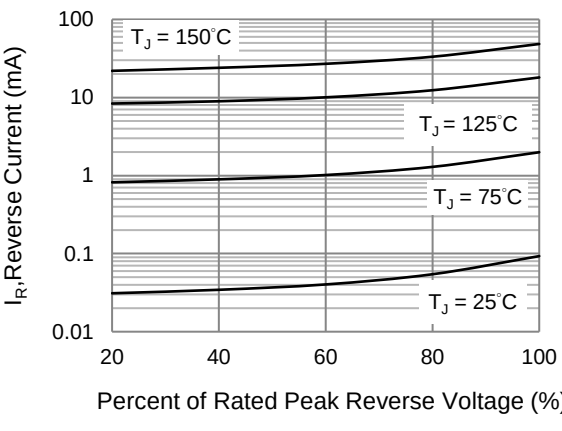


Fig.3 Typical Reverse Characteristics

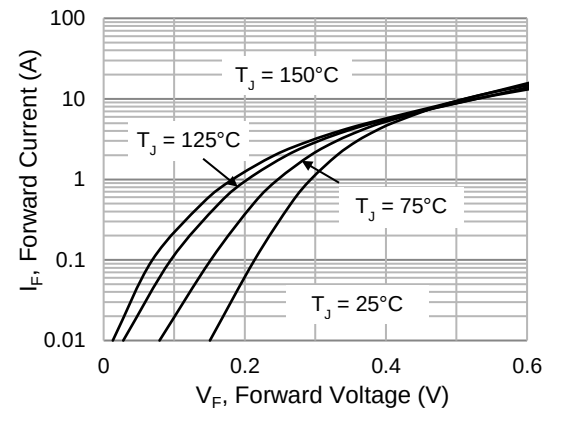


Fig.4 Typical Forward Characteristics

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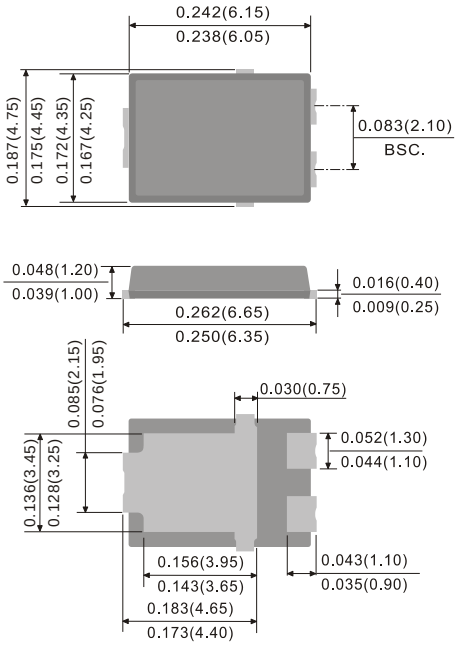
Product and Packing Information

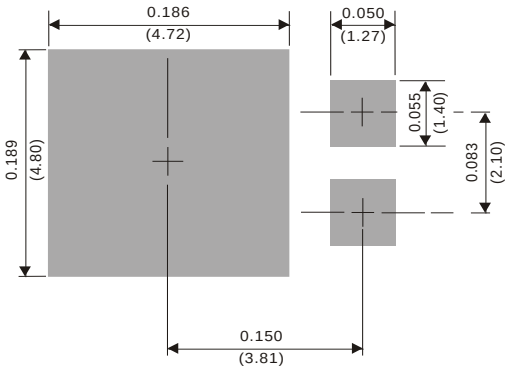
Part No.	Package Type	Packing Type	Marking
SBM860UPC	TO-277C	5K pcs / 13” reel	SBM860UPC

Packaging Information & Mounting Pad Layout

TO-277C Dimension — Unit: inch(mm)



TO-277C Pad Layout — Unit: inch(mm)



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