SMBRP2560

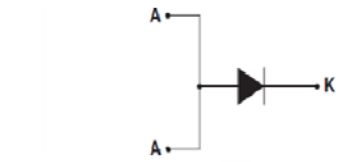
Schottky Barrier Rectifier

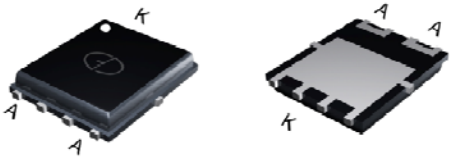
Reverse Voltage 60 Volts Forward Current 25 Amperes

Features

Ultra Low Vf=0.40V at IF=10A (25ºC)/Vf=0.50 V at IF=25A (25ºC)

- **Thin Package:1.0mm**
- Low forward voltage drop, low power losses
- High efficiency operation
- Halogen Free Plastic package has underwriters Laboratory Flammability Classification 94V-0





Package: POWER QFN5x6

Mechanical Data

- Case: Epoxy, Molded
- Weight: 0.1grams（approximately）
- Finish: All External Surfaces Corrosion Resistant and Terminal Leads are Readily Solderable
- Lead Temperature for Soldering Purposes: 260°C Max. for 10 sec
- Shipped 3000 units per reel

Maximum Ratings & Electrical Characteristics

(T_A=25℃ unless otherwise noted)

PARAMETER	TEST CONDITIONS		SYMBOL	SMBRP2560	UNIT
Maximum repetitive peak reverse voltage			V_{RRM}	60	V
Working peak reverse voltage			V_{RWM}	60	V
Maximum DC blocking voltage			V_{DC}	60	V
Maximum average forward rectified current at T_C=105°C total device per diode			I_F(AV)	25	A
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load per diode			I_{FSM}	200	A
Peak repetitive reverse current per leg at t_p=2.0us ,1KHz			I_{RRM}	2.0	A
Operating junction temperature range			T_J	—55 to+150	°C
Storage temperature range			T_{STG}	—55 to+150	°C
Maximum instantaneous forward voltage per leg	I_F=25A I_F=25A	T_C=25℃ T_C=125℃	V_F	0.55(0.50 TYP) 0.48	V
Maximum reverse current per leg at working peak Reverse voltage		T_J=25℃ T_J=100°C	I_R	500 50	uA mA

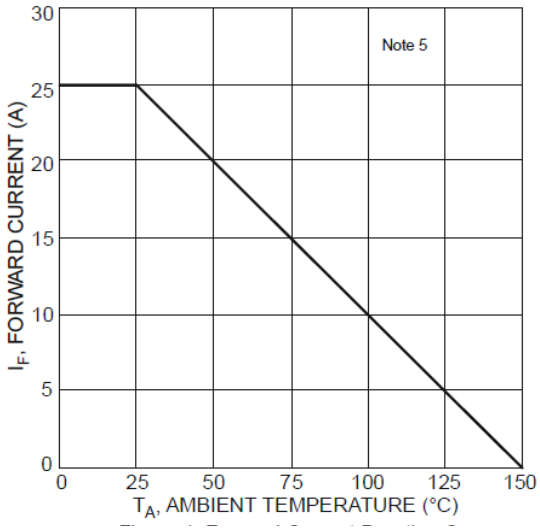
Thermal Characteristics T_A=25℃ unless otherwise noted

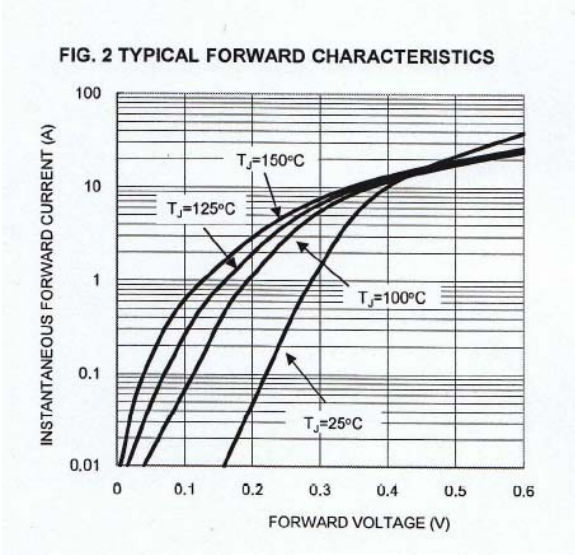
Symbol	Parameter	TYP（POWER QFN 5x6）	Unit
RθJC	Thermal Resistance, Junction to Case per Leg	2.5	°C /W
RθJA	Thermal Resistance, Junction to Ambient per Leg	50	°C /W

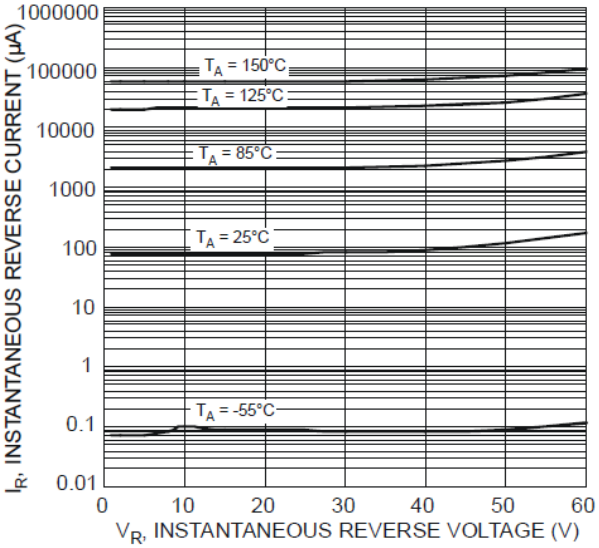
Note：Pulse test:300us pulse width, duty cycle=2%

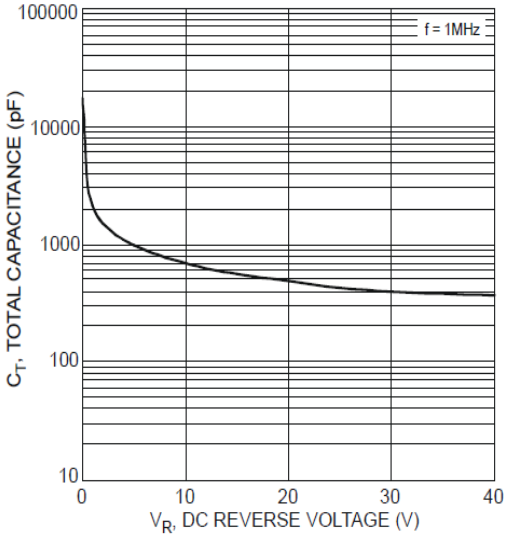
Ratings and Characteristics Curves

(T_A = 25℃ unless otherwise noted)





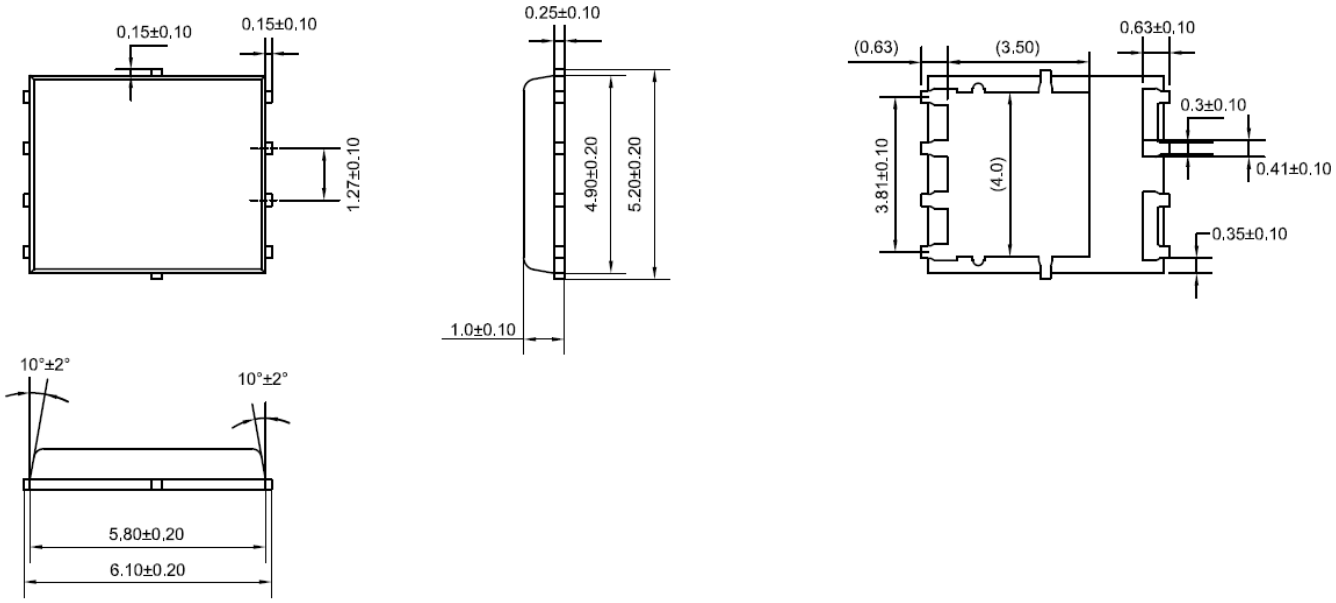




Package Outline Dimensions

Unit: millimeters

POWER QFN 5x6



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