



SBA140P1

Surface Mount Schottky Barrier Rectifier

Features

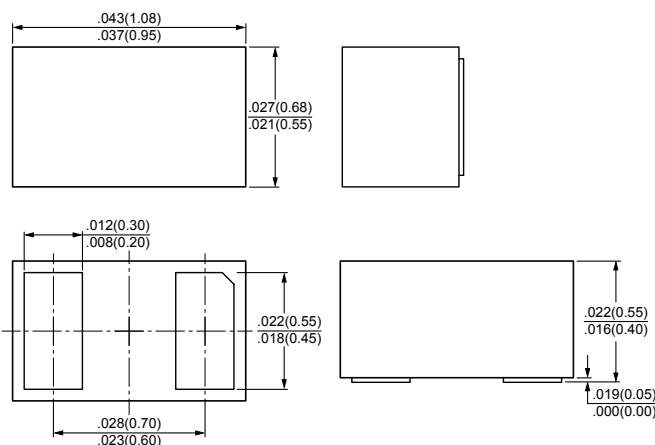
- ★ Low forward voltage drop
- ★ Trench schottky barrier technology
- ★ Majority carrier conduction
- ★ Leadless ultra small SMD plastic package

Mechanical Data

- ★ Case: Molded plastic, DFN1006-2
- ★ Epoxy: UL 94V-0 rate flame retardant
- ★ Terminals: Solderable per MIL-STD-202, method 208
- ★ Polarity: Color band denotes cathode end
- ★ Mounting position: Any

Voltage 40 Volt
Current 1.0 Ampere

DFN1006-2



Dimensions in inches and (millimeters)

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Rating at 25°C ambient temperature unless otherwise specified.

PARAMETER	SYMBOL	VALUE	UNIT			
Maximum repetitive peak reverse voltage	V_{RRM}	40	V			
Maximum RMS voltage	V_{RMS}	28	V			
Maximum DC blocking voltage	V_{DC}	40	v			
Maximum average forward rectified current @ $T_L=110^\circ\text{C}$	$I_{F(AV)}$	1	A			
Peak forward surge current 8.3 ms single half sine-wave superimposed on rated load	I_{FSM}	5	A			
Typical thermal resistance	$R_{\theta JA}$	200	$^\circ\text{C}/\text{W}$			
Operating junction temperature range	T_J	-50 to +150	$^\circ\text{C}$			
Storage temperature range	T_{STG}	-50 to +150	$^\circ\text{C}$			
PARAMETER	SYMBOL	TEST CONDITION	MIN	TYP	MAX	UNIT
Breakdown voltage	V_{BR}	$I_R = 0.5 \text{ mA}$	40	-	-	V
Instantaneous forward voltage	V_F	$I_F = 100 \text{ mA}$ $I_F = 500 \text{ mA}$ $I_F = 1000 \text{ mA}$	-	-	375 485 570	mV
Reverse leakage current	I_R	$V_R = 10 \text{ V}$ $V_R = 40 \text{ V}$	-	-	30 100	μA
Junction capacitance	C_J	$V_R = 4 \text{ V}, f = 1 \text{ MHz}$	-	35	-	pF

RATINGS AND CHARACTERISTICS CURVES

Fig.1 - Forward Current Derating Curve

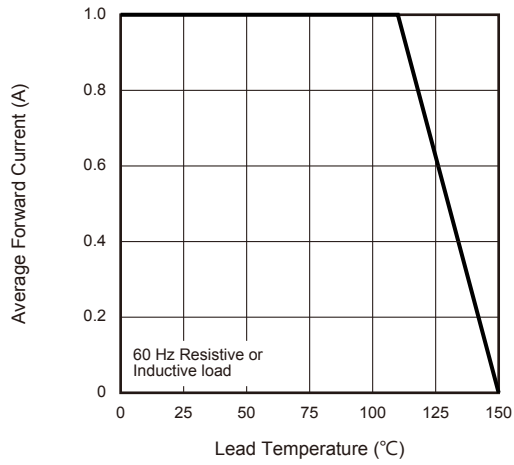


Fig.2 - Typical Instantaneous Forward Characteristics

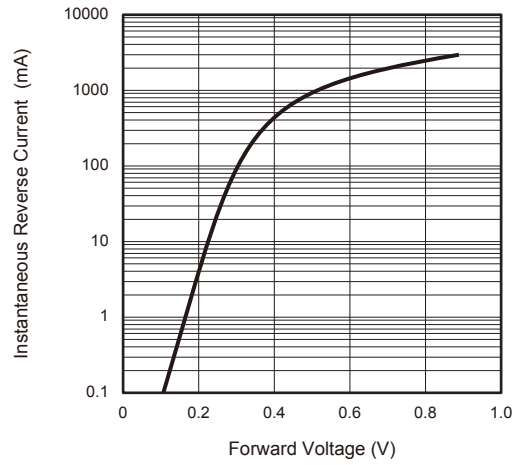


Fig.3 - Typical Reverse Characteristics

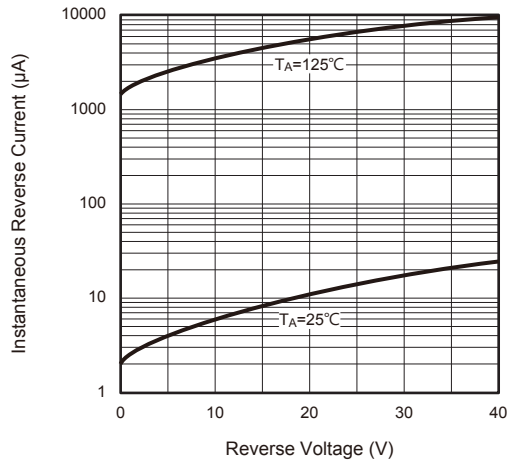
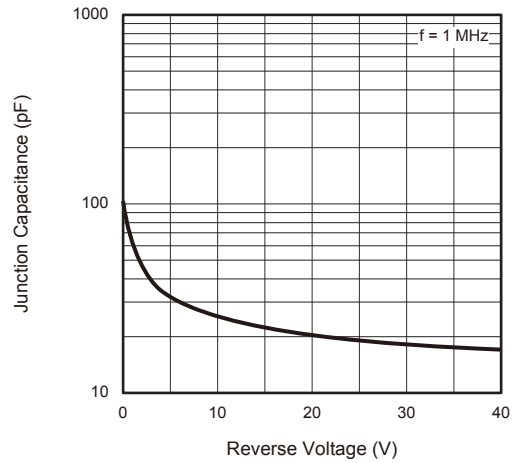


Fig.4 - Capacitance Characteristics



ORDERING INFORMATION

Part Number	Marking Code	Package	Quantity	Delivery Mode
SBA140P1	4	DFN1006-2	10,000	7" diameter reel