USB2J

SURFACE MOUNT FAST SWITCHING RECTIFIER

VOLTAGE：600V **CURRENT：2.0A**

GULF SEMI

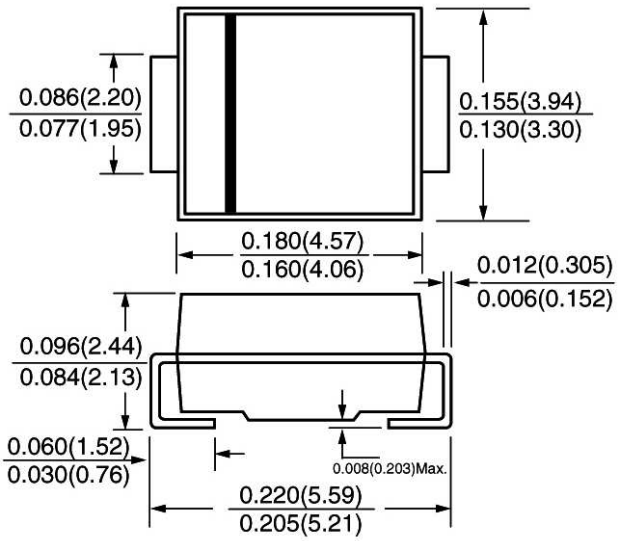
FEATURE

Ideal for surface mount pick and place application
Low profile package
Built-in strain relief
High surge capability
High temperature soldering guaranteed
260℃/10sec/at terminals
Glass passivated chip
Fast recovery time for high efficiency

MECHANICAL DATA

Terminal：Plated axial leads solderable per MIL-STD 202E, method 208C
Case：Molded with UL-94 class V-0 recognized Flame Retardant Epoxy
Polarity：color band denotes cathode

SMB / DO-214AA



Dimensions in inches and (millimeters)

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

(single-phase, half-wave, 60HZ, resistive or inductive load rating at 25℃, unless otherwise stated, for capacitive load, derate current by 20%)

	SYMBOL	USB2J	units
Maximum Recurrent Peak Reverse Voltage	Vrrm	600	V
Maximum RMS Voltage	Vrms	420	V
Maximum DC blocking Voltage	Vdc	600	V
Maximum Average Forward Rectified	If(av)	2.0	A
Peak Forward Surge Current 8.3ms single half sine- wave superimposed on rated load	Ifsm	90.0	A
Maximum Instantaneous Forward Voltage at rated forward current	Vf	1.6	V
Maximum DC Reverse Current Ta =25℃ at rated DC blocking voltage Ta =125℃	Ir	5.0 100.0	μA
Maximum Reverse Recovery Time (Note1)	Trr	30	nS
Typical Junction Capacitance (Note 2)	Cj	45.0	pF
Typical Thermal Resistance (Note 3)	Rth(jl)	10.0	℃/W
Storage and Operating Junction Temperature	Tstg, Tj	-55 to +150	℃

Note：
1. Reverse Recovery Condition If =0.5A, Ir =1.0A, Irr =0.25A
2. Measured at 1.0 MHz and applied reverse voltage of 4.0Vdc
3. Units mounted on P.C.B with 2.0×2.0″ copper pad areas

RATINGS AND CHARACTERISTIC CURVES USB2J

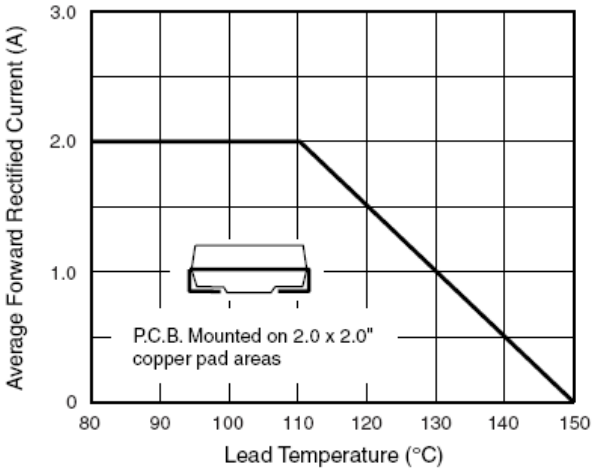


Figure 1. Maximum Forward Current Derating Curve

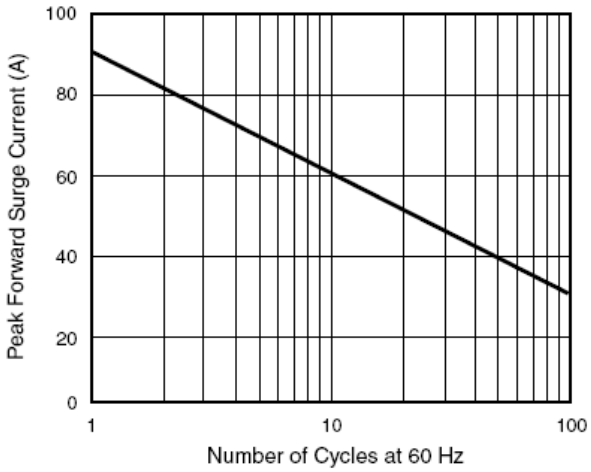


Figure 2. Maximum Non-Repetitive Peak Forward Surge Current

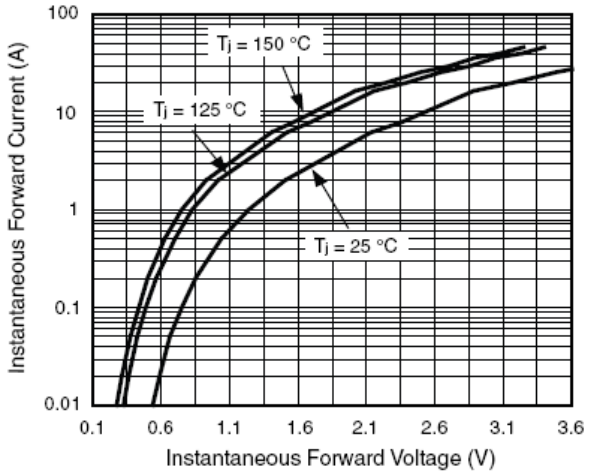


Figure 3. Typical Instantaneous Forward Characteristics

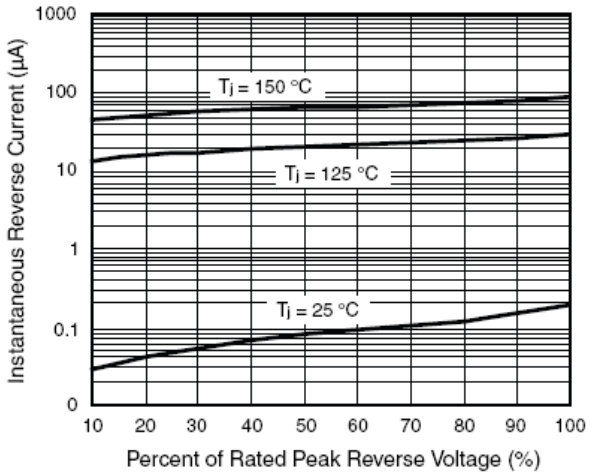


Figure 4. Typical Reverse Leakage Characteristics

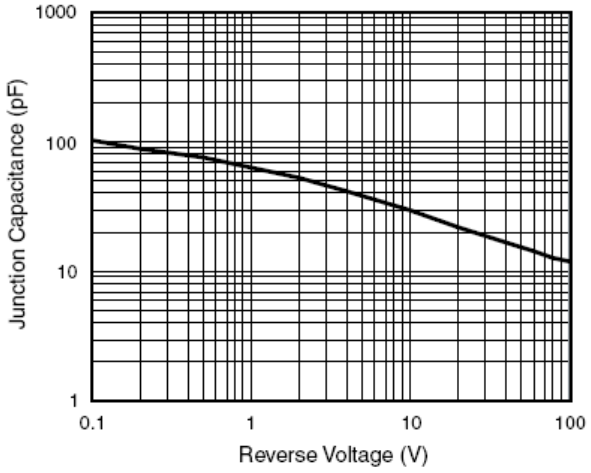


Figure 5. Typical Junction Capacitance