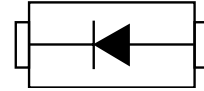


Feature

- Ultra Small mold type. SMC
- Very Low forward voltage drop
- High current capability
- For surface mounted applications
- Metal-Semiconductor junction with guard ring
- For use in low voltage, high frequency inverters, free wheeling, and polarity protection application


Applications

- Low current rectification

Mechanical Characteristics

- Lead finish:100% matte Sn(Tin)
- Mounting position: Any
- Qualified max reflow temperature:260°C
- Device meets MSL 2 requirements
- Pure tin plating: 7 ~ 17 um
- Pin flatness:≤3mil

Electrical characteristics per line@25°C

Parameter	Symbol	Min.	Typ.	Max.	Unit	Conditions
Forward voltage	V_F	-	-	0.7	V	$I_F=5A$
Reverse current	I_R	-	-	0.5	mA	$V_R=40$

Absolute maximum rating@25°C

Parameter	Symbol	limits	Unit
Reverse voltage (DC)	V_{RM}	40	V
Average rectified forward current	I_o	5.0	A
Peak Forward Surge Current 8.3ms Single Half Sine Wave Superimposed on Rated Load	I_{FSM}	125	A
Operating Junction temperature Range	T_j	-55 to 125	°C
Storage temperature	T_{stg}	-55 to 125	°C

Note: (1) Measured at 1.0MHz and applied reverse voltage of 4.0V DC

Typical Characteristics

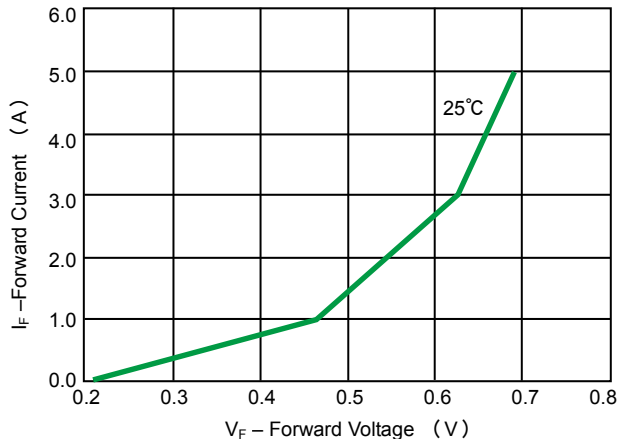


Fig 1. Forward Voltage

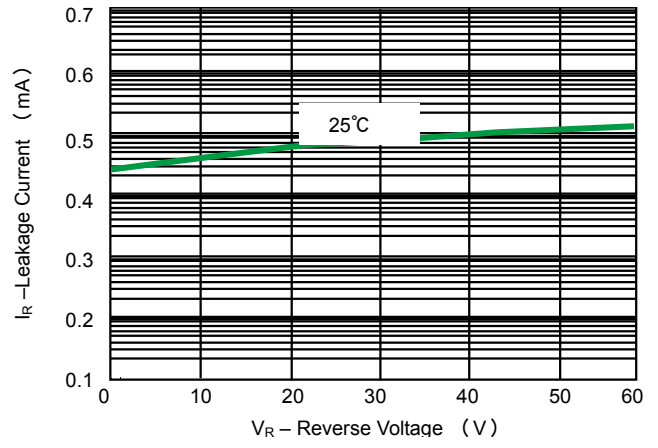


Fig 2. Leakage Current

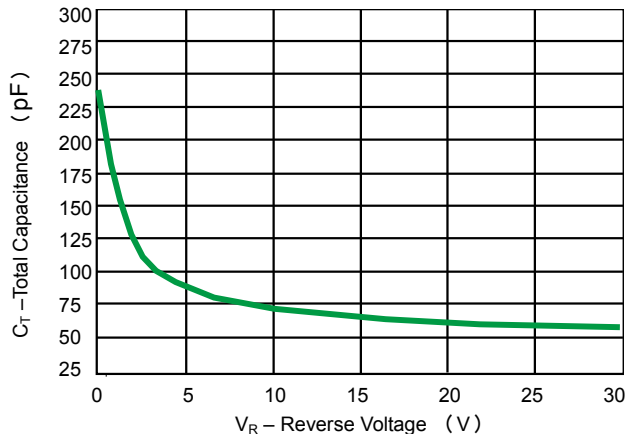
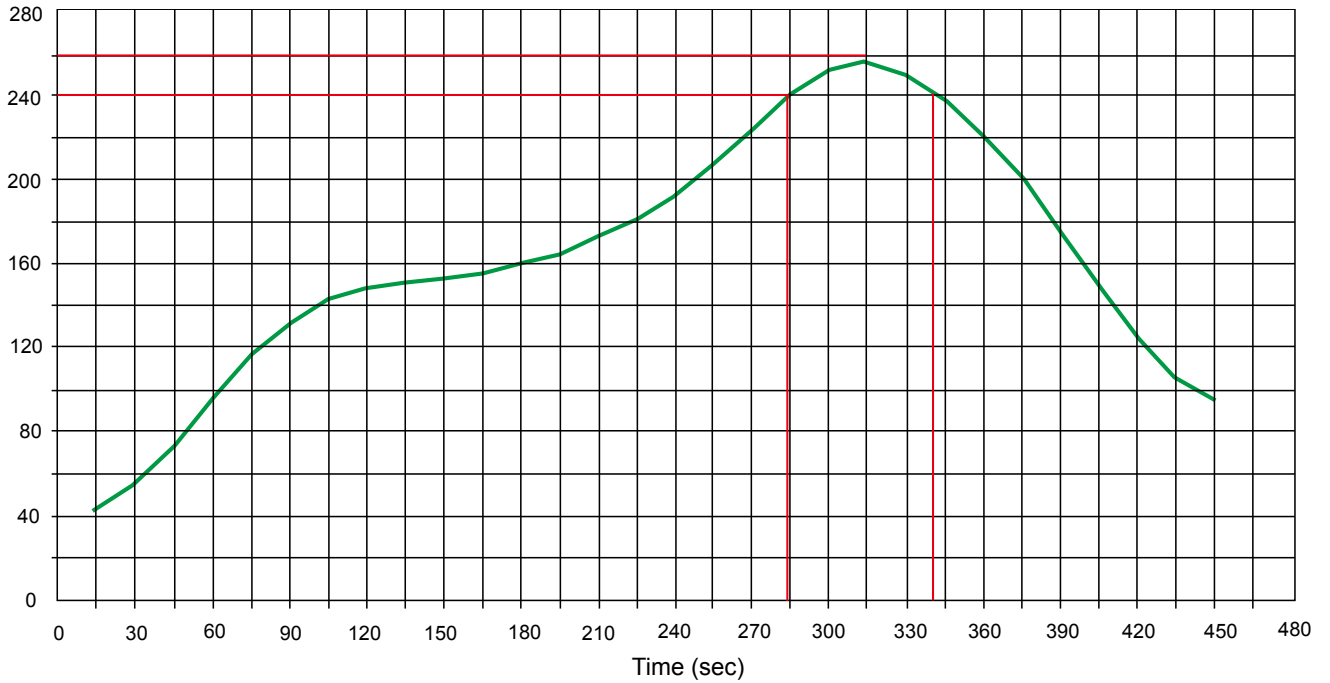


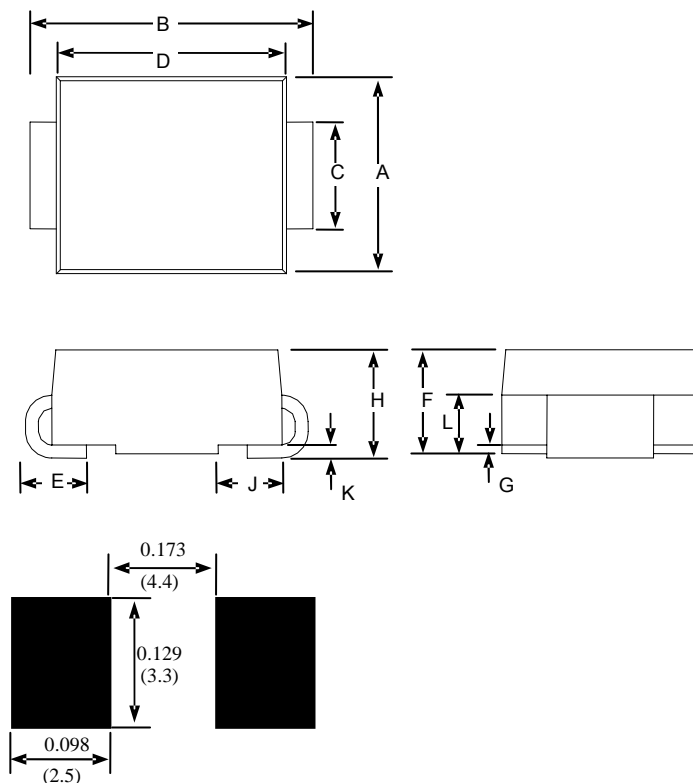
Fig 3. Total Capacitance

Solder Reflow Recommendation

Peak Temp=257°C, Ramp Rate=0.802deg. °C/sec



Product dimension(SMC)




DIMENSIONS ARE : $\frac{\text{INCHES}}{\text{(Millimeters)}}$

Dimension	Inches		Millimeters	
	MIN	MAX	MIN	MAX
A	0.220	0.245	5.590	6.220
B	0.305	0.320	7.750	8.130
C	0.114	0.126	2.900	3.200
D	0.260	0.280	6.600	7.110
E	0.030	0.060	0.760	1.520
F	0.079	0.103	2.060	2.620
G	-	0.008	-	0.203
H	0.079	0.103	2.060	2.620
J	0.030	0.060	0.760	1.520
K	-	0.008	-	0.203

Ordering information

Device	Package	Shipping
PSBDC40V5	SMC (Pb-Free)	3000 / Tape & Reel


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