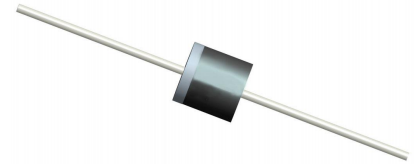


Features

- Super-high speed & low noise switching
- Low voltage drop
- This is a Pb – Free Device
- All SMC parts are traceable to the wafer lot
- Additional tested upon request

R-6



Mechanical Data

- DC-DC converters
- AC adapter
- High frequency rectification circuit
- Bypass diodes



Maximum Ratings:

Characteristics	Symbol	Condition	Max.	Units
Peak Repetitive Reverse Voltage	V_{RRM}	-	100	V
Working Peak Reverse Voltage	V_{RWM}			
DC Blocking Voltage	V_R			
Average Rectified Forward Current	$I_F (AV)$	50% duty cycle @ $T_c = 25^\circ C$, rectangular wave form	20	A
Peak One Cycle Non-Repetitive Surge Current	I_{FSM}	8.3 ms, half Sine pulse, $T_c = 25^\circ C$	280	A

Electrical Characteristics:

Characteristics	Symbol	Condition	Typ.	Max.	Units
Peak Forward Voltage	V_{FM1}	$I_{FM}=20.0A, T_a=25^\circ C$	0.80	0.88	V
	V_{FM2}	$I_{FM}=20.0A, T_a=125^\circ C$	0.70	0.74	V
Peak Reverse Current	I_{RRM1}	$V_{RM}=V_{RRM}$	0.006	1	mA
	I_{RRM2}				
Junction Capacitance	C_T	@ $V_R = 5V, T_c = 25^\circ C, f_{SIG} = 1MHz$	350	400	pF
Thermal Resistance	$R_{\theta J-C}$	Between junction and case	3.0	-	$^\circ C/W$
	$R_{\theta J-L}$	Between junction and lead	2.0	-	

Thermal-Mechanical Specifications:

Characteristics	Symbol	Condition	Specification	Units
Junction Temperature	T_J	-	-55 to +150	$^\circ C$
Storage Temperature	T_{stg}	-	-55 to +150	$^\circ C$
Approximate Weight	wt	-	2.24	g
Case Style		R-6		

RATINGS AND CHARACTERISTIC CURVES

FIG.1-FORWARD CURRENT DERATING CURVE

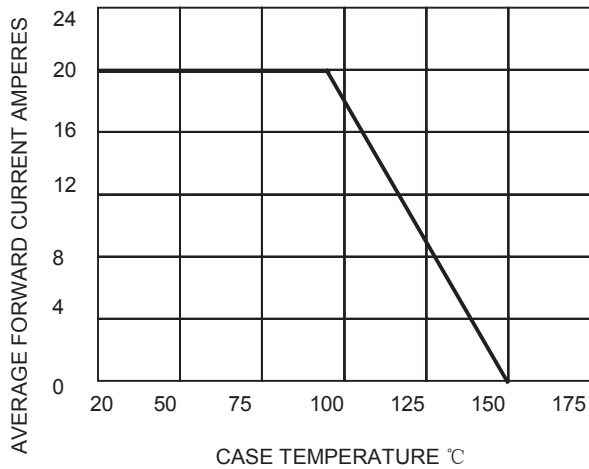


FIG.2-MAXIMUM NON-REPETITIVE SURGE

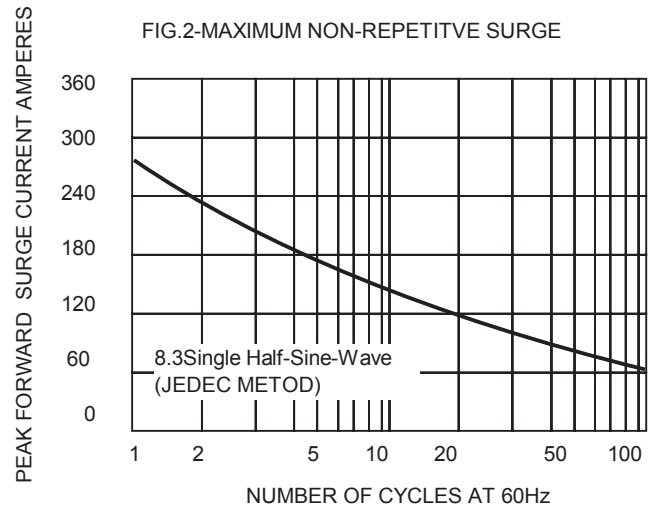


FIG.3-TYPICAL REVERSE CHARACTERISTICS

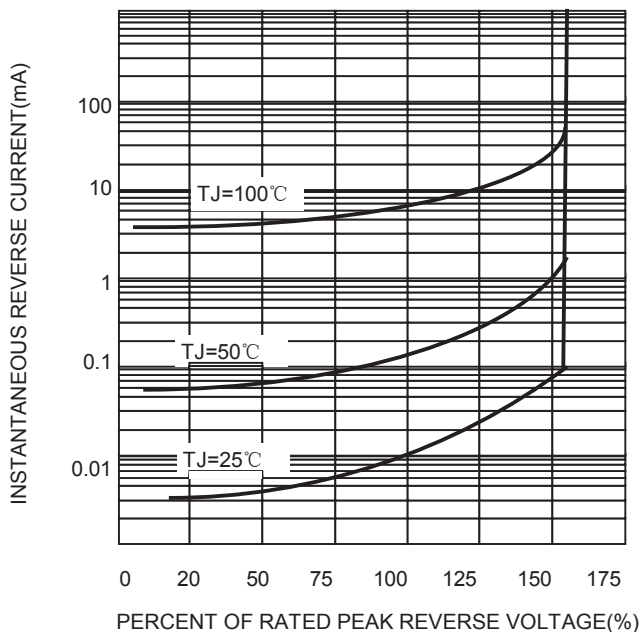


FIG.4-TYPICAL FORWARD CHARACTERISTICS

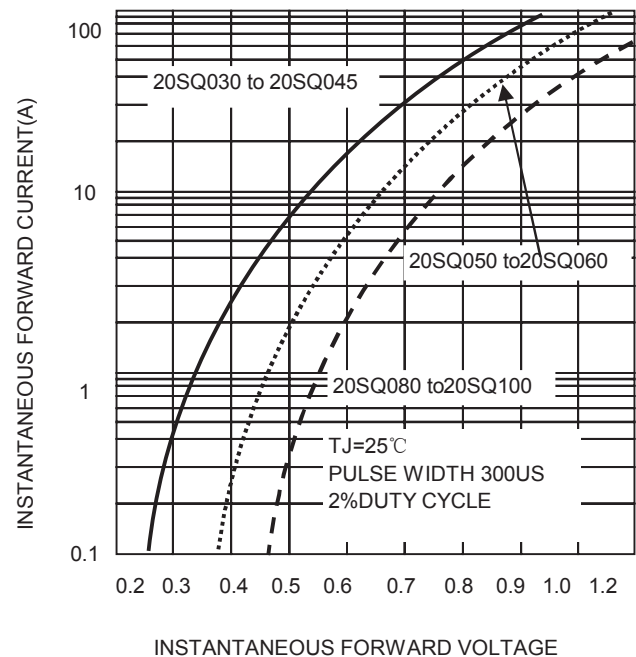
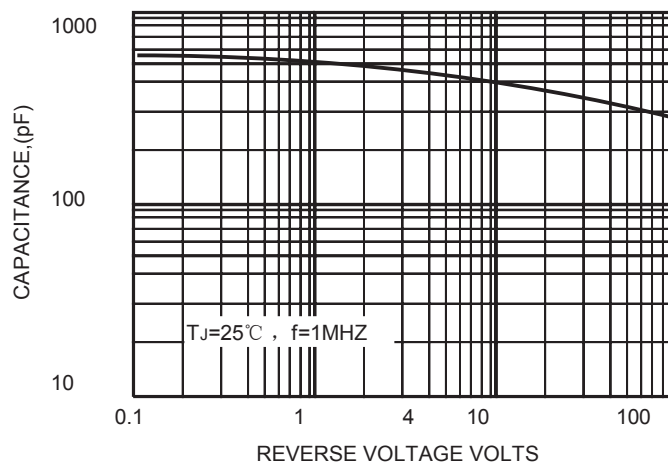
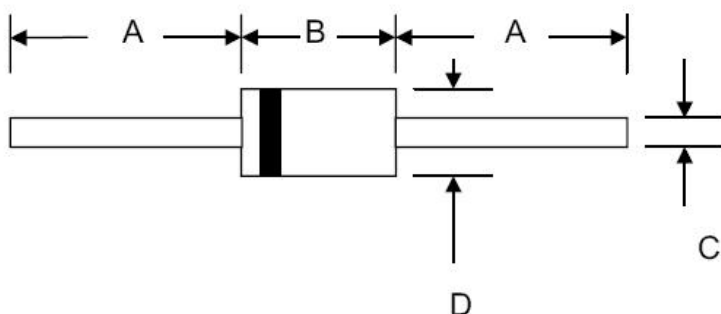


FIG.5-TYPICAL JUNCTION CAPACITANCE



Mechanical Dimensions R-6



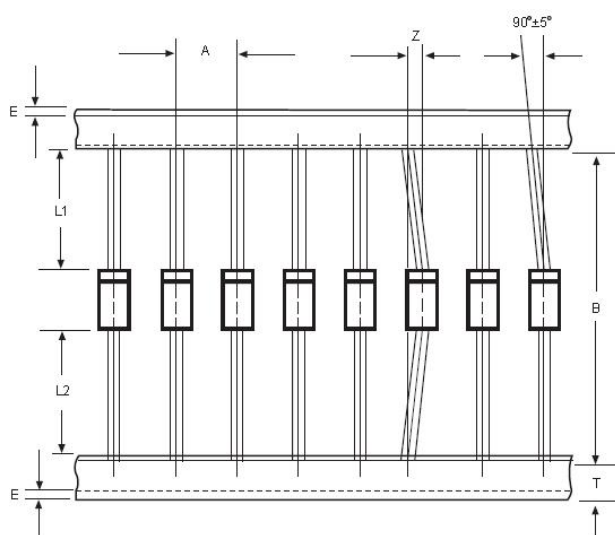
SYMBOL	Millimeters		Inches	
	Min.	Max.	Min.	Max.
A	25.4	-	1.000	-
B	8.60	9.10	0.340	0.360
C	1.2	1.3	0.048	0.052
D	8.60	9.10	0.340	0.360

Ordering Information

Device	Package	Shipping
20SQ100	R-6(Pb-Free)	500pcs / reel

For information on tape and reel specifications, including part orientation and tape sizes, please refer to our tape and reel packaging specification.

Carrier Tape Specification R-6



SYMBOL	Millimeters	
	Min.	Max.
A	9.50	10.50
B	50.9	53.9
Z	-	1.20
T	5.60	6.40
E	-	0.80
IL1-L2I	-	1.0