

SF2006

Ultrafast Soft Recovery Diode

■ FEATURE

- * Ultrafast Recovery
- * High Voltage Capability to 600V
- * High frequency operation



■ MAXIMUM RATINGS(TA=25°C, unless otherwise specified.)

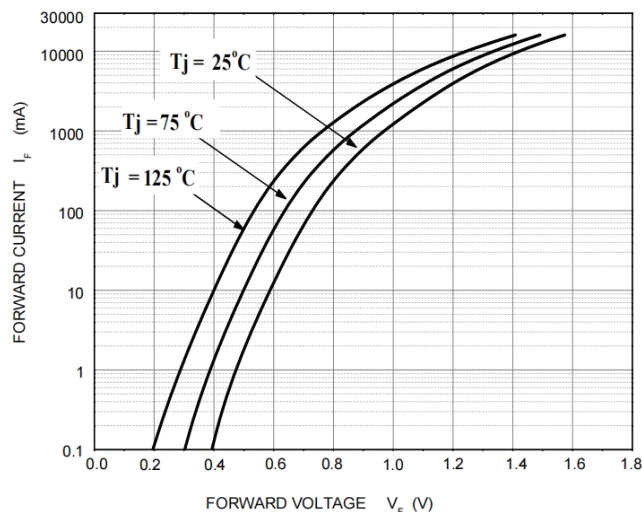
SYMBOL	PARAMETER	SF2006	UNIT
VRRM	Peak repetitive reverse voltage	600	V
VRWM	Working peak reverse voltage		
VR	DC blocking voltage		
VR(RMS)	RMS reverse voltage	420	V
IO	Average rectified output current@ Per leg	10	A
	Average rectified output current@ Total device	20	A
IFSM	Non-Repetitive peak forward surge current 8.3ms half sine wave	110	A
PD	Power dissipation	2.0	W
ROJA	Thermal resistance from junction to ambient	62.5	°C/W
Tj	Operating Junction Temperature Range	175	°C
Tstg	Storage Temperature Range	-55 ~ +175	°C

■ ELECTRICAL CHARACTERISTICS(Ta=25°C unless otherwise specified)

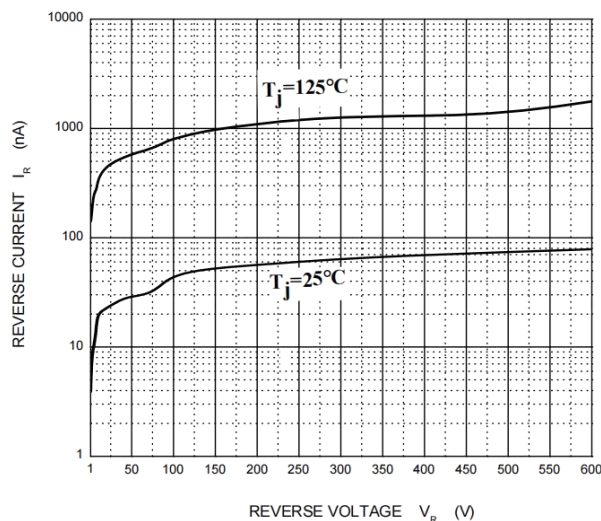
PARAMETER	SYMBOL	TEST CONDITIONS	MIN	TYP	MAX	UNIT
Reverse voltage	V(BR)	IR=100uA	600			V
Reverse current	IR	VR=600V Tj =25°C			1	uA
Forward voltage	VF	IF=10A Tj =25°C		1.50	1.7	V
Typical total capacitance	Ctot	VR =4.0V,f=1MHz		28		pF
Reverse recovery time	trr	IF= 0.5A, IR=1A,Irr=0.25A			35	ns

TYPICAL CHARACTERISTICS

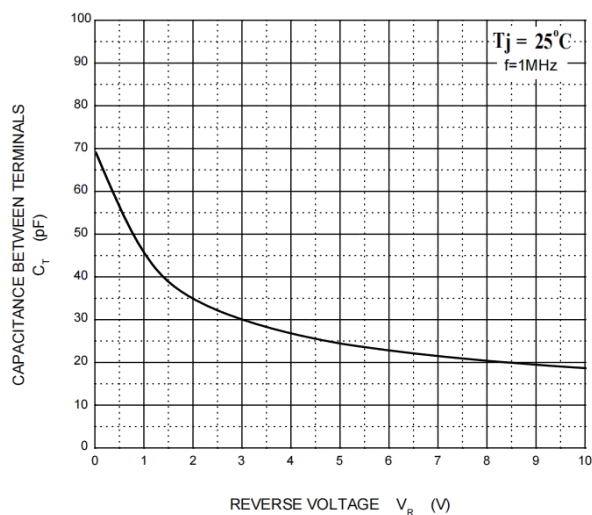
Forward Characteristics



Reverse Characteristics



Capacitance Characteristics



Power Derating Curve

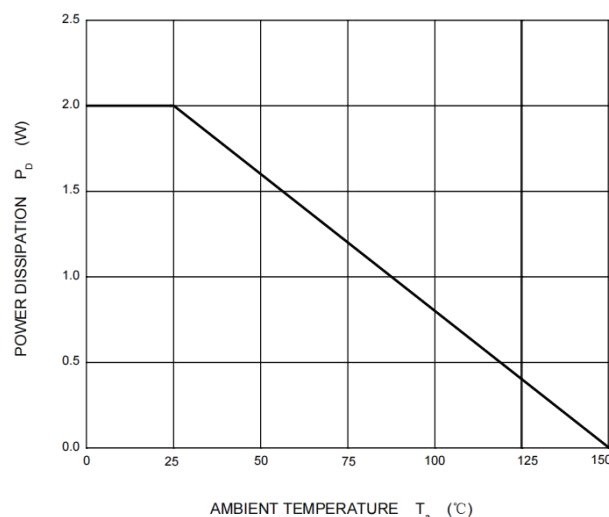
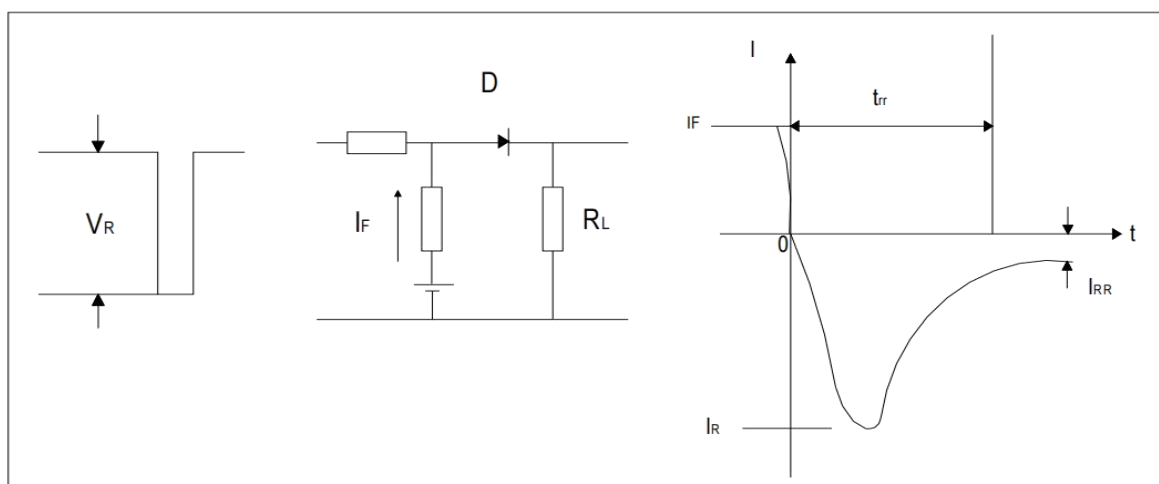


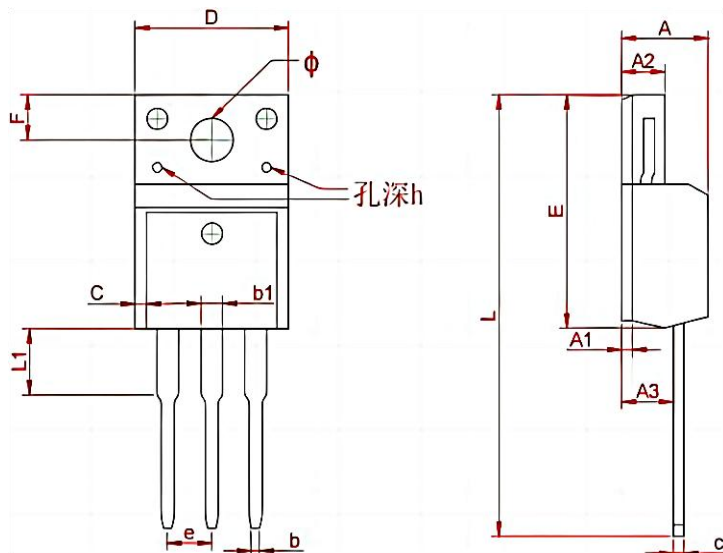
Diagram of circuit and Testing wave form of reverse recovery time



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TO - 220F Package Outline Dimensions



Symbol	Dimensions In Millimeters	
	Min	Max
A	4.300	4.750
A1	0.7 REF	
A2	2.300	2.850
A3	2.500	2.900
b	0.380	0.420
b1	1.220	1.280
C	1.08	1.200
c	0.480	0.520
D	10.15	10.450
E	15.700	15.950
e	2.574 TYP	
F	3.470 REF	
y	3.200 REF	
h	0.000	0.800
L	28.780	28.900
L1	2.990	3.100

TO - 220F Packing Information

Package version	Tube dimensions LxWxH (mm)	Per Tube (pcs)	Tube per box	Inner box dimensions LxWxH (mm)	PCS/ Inner box	Outer box dimensions LxWxH(mm)	PCS/ Outer box
TO-220F	530*32*7	50	20	580*155*50	1000	602*277*188	5000