

S3A-S3M General Purpose Rectifier
Feature

- I_o 3A
- V_{RRM} 50V-1000V
- Low reverse leakage
- High surge current capability

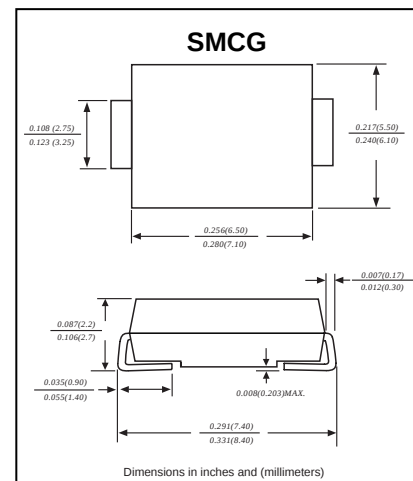
Application

- Rectifier

Application

- S3X

X : From A To M


ABSOLUTE MAXIMUM RATINGS ($T_a=25^\circ\text{C}$ unless otherwise noted)

Parameter	Symbol	S3							Unit
		A	B	D	G	J	K	M	
Repetitive Peak Reverse Voltage	V_{RRM}	50	100	200	400	600	800	1000	V
Maximum RMS Voltage	V_{RMS}	35	70	140	280	420	560	700	V
Average Forward Current 60Hz Half-sine wave, Resistance load, $T_L=110^\circ\text{C}$	$I_{F(AV)}$	3							A
Non-repetitive Peak Forward Surge Current 60Hz Half-sine wave, 1 cycle, $T_a=25^\circ\text{C}$	I_{FSM}	100							A
Junction Temperature	T_J	$-55 \sim +150$							$^\circ\text{C}$
Storage Temperature	T_{STG}	$-55 \sim +150$							$^\circ\text{C}$

ELECTRICAL CHARACTERISTICS ($T_a=25^\circ\text{C}$ unless otherwise noted)

Parameter	Symbol	Test Condition	S3							Unit
			A	B	D	G	J	K	M	
Peak Forward voltage	V_{FM}	$I_F=1A$	1.15							V
Peak Reverse Current	I_{RRM1}	$V_{RM}=V_{RRM}$	$T_a=25^\circ\text{C}$							μA
	I_{RRM2}		$T_a=125^\circ\text{C}$							μA
Thermal Resistance (Typical)	$R_{\theta J-A}$	Between junction and ambient	47							$^\circ\text{C/W}$
	$R_{\theta J-L}$	Between junction and lead	10							$^\circ\text{C/W}$
Typical Junction capacitance	C_J	Measured at 1.0MHz and applied reverse voltage of 4.0 volts.	53							pF

Notes:

Thermal resistance from junction to ambient and from junction to lead mounted on P.C.B. with 0.3" x 0.3" (8.0 mm x 8.0 mm) copper pad areas

Typical Characteristics

FIG.1: FORWARD CURRENT DERATING CURVE

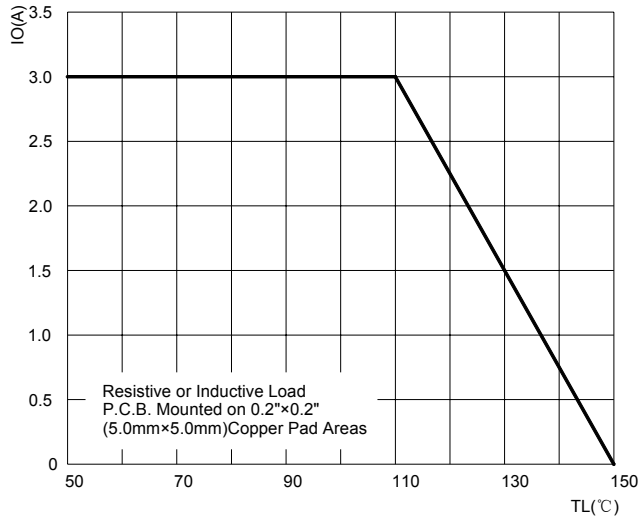


FIG.2: MAXIMUM NON-REPETITIVE FORWARD URGE CURRENT

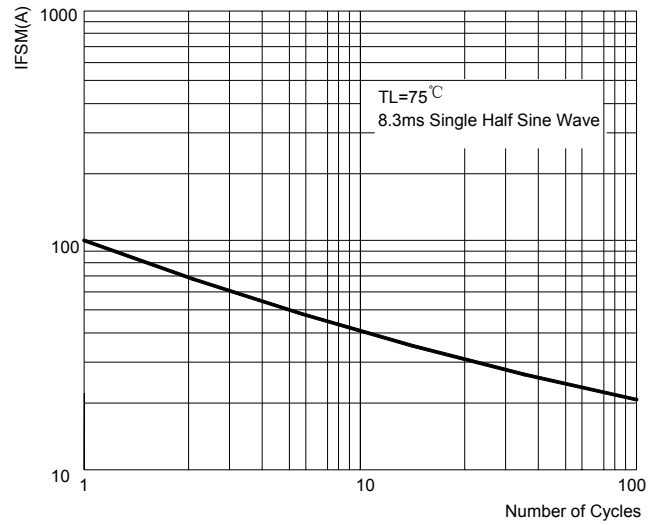


FIG.3: TYPICAL FORWARD CHARACTERISTICS

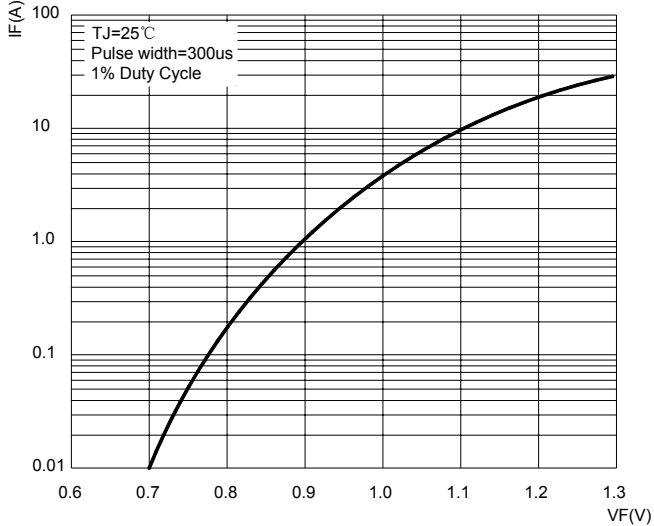


FIG.4: TYPICAL REVERSE CHARACTERISTICS

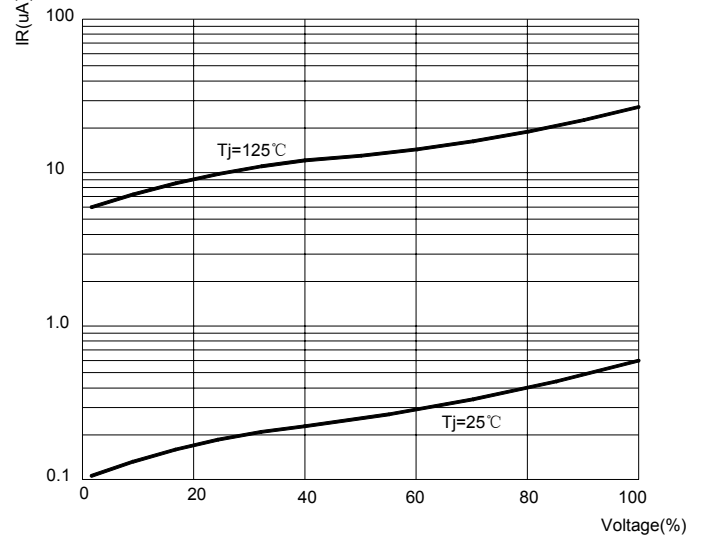


FIG.5: Diagram of circuit and Testing wave form of reverse recovery time

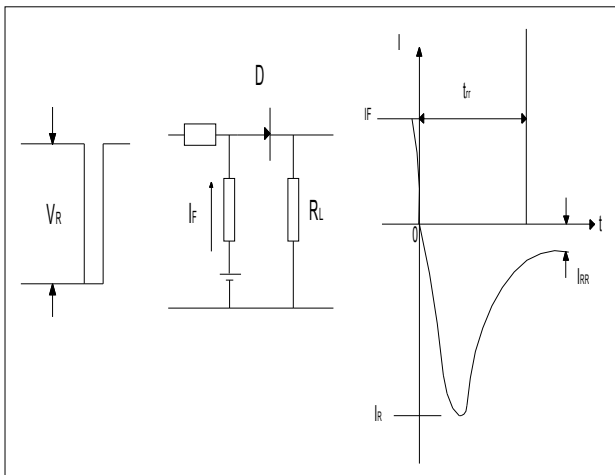


FIG6: Typical Junction Capacitance

