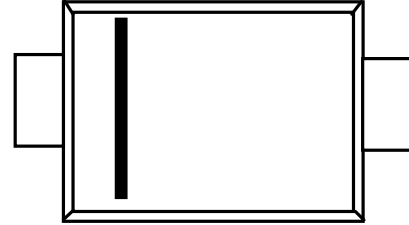


»Features

- Super fast switching time for high efficiency
- Low forward voltage drop
- High current capability
- High reliability
- High surge current capability
- Epitaxial construction



SMA(DO-214AC)

»General Description

- Case: molded plastic
- Polarity: Color band denotes cathode
- Package: SMA Plastic Package

» Maximum Ratings and Electrical Characteristics

Ratings at 25 °C ambient temperature unless otherwise specified.

Single phase half wave 60HZ. resistive or inductive load. For capacitive load current derate by 20%

Characteristics	SYMBOL	US1A	US1B	US1D	US1G	US1J	US1K	US1M	UNIT
Maximum Recurrent Peak Reverse Voltage	VRRM	50	100	200	400	600	800	1000	V
Maximum RMS Voltage	VRMS	35	70	140	280	420	560	700	V
Maximum DC Blocking Voltage	VDC	50	100	200	400	600	800	1000	V
Maximum Average Forward Rectified Current @TL=110 °C	I(AV)	1.0							A
Peak Forward Surge Current 8.3ms Single Half Sine-Wave Super Imposed On Rated Load (JEDEC Method)	IFSM	30							A
Maximum Forward Voltage at 1.0A DC	VF	1.0			1.4	1.7			V
Maximum DC Reverse Current @TJ=25°C	IR	10							μA
at Rated DC Blocking Voltage @TJ=125°C		50							
Maximum reverse recovery time(Note1)	trr	50				75			ns
Typical Junction Capacitance (Note2)	CJ	17							pF
Typical Thermal Resistance (Note3)	RθJC	60							°C/W
Operating Temperature Range	TJ	-55 to +150							°C
Storage Temperature Range	TSTG	-55 to +150							°C

NOTE: 1. Reverse recovery condition $I_F=0.5A$ $I_R=1.0A$ $I_{rr}=0.25A$.

2. Measured at 1.0MHz and applied reverse voltage of 4.0V DC.

3. Thermal Resistance Junction to Ambient.

»Typical Performance Characteristics ((T_J = 25 °C, unless otherwise noted))

FIG. 1 -- TYPICAL FORWARD CHARACTERISTIC

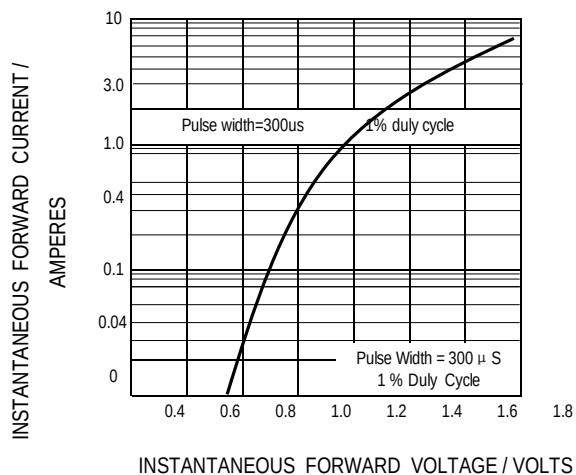


FIG. 2 -- TYPICAL JUNCTION CAPACITANCE

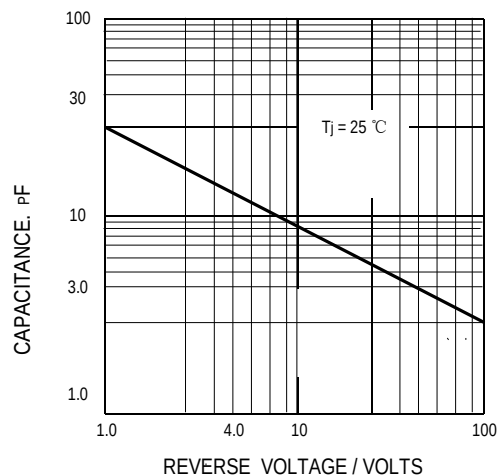


FIG. 3 -- FORWARD CURRENT DERATING CURVE

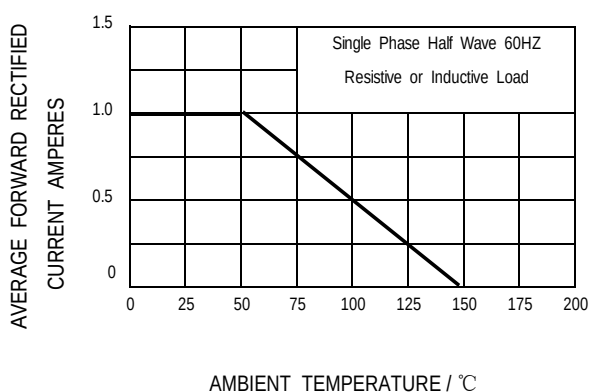


FIG. 4 -- PEAK FORWARD SURGE CURRENT

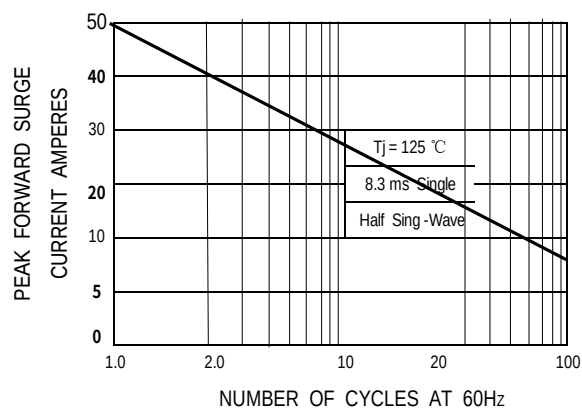
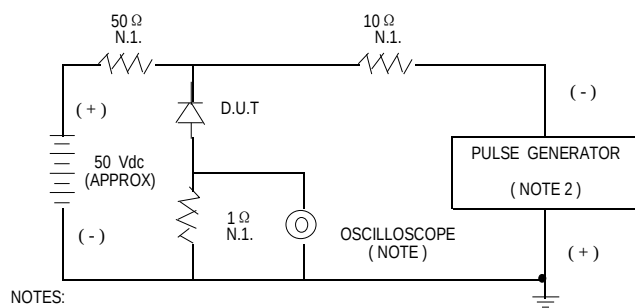
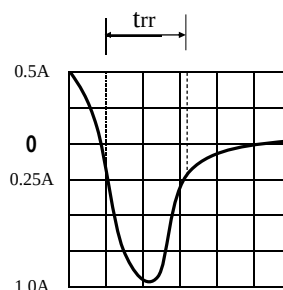


FIG. 5 -- TEST CIRCUIT DIAGRAM AND REVERSE RECOVERY TIME CHARACTERISTIC



NOTES:

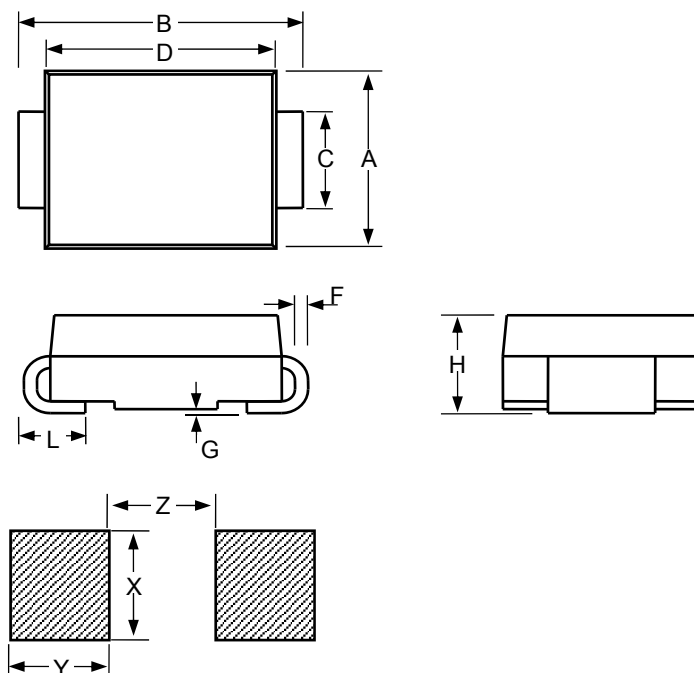
1. RISE TIME = 7n SEC MAX. INPUT IMPEDANCE = 1 MEGOHM. 22PF
2. RISE TIME = 10n SEC MAX. SOURCE IMPEDANCE = 50 OHM.



SET TIME BASE FOR 15 ns / cm

»Package Information

SMA



SMA						
Dimension	Inches			Millimeters		
	MIN	NOM	MAX	MIN	NOM	MAX
A	0.098		0.114	2.5		2.9
B	0.194		0.223	4.93		5.66
C	0.051		0.067	1.3		1.7
D	0.157		0.181	3.99		4.6
F	0.006		0.012	0.152		0.305
G	-		0.008	-		0.203
H	0.078		0.095	1.98		2.42
L	0.03		0.06	0.76		1.52
X		0.085			2.16	
Y		0.07			1.78	
Z		0.079			2	

»Ordering information

Part Number	US1A	US1B	US1D	US1G	US1J	US1K	US1M
Marking	US1A	US1B	US1D	US1G	US1J	US1K	US1M
Base qty	5K	5K	5K	5K	5K	5K	5K