

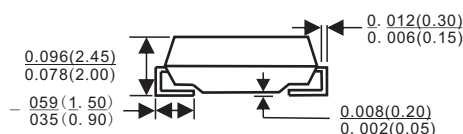
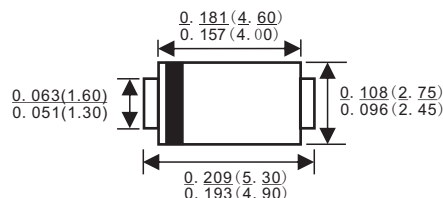
Features

- ◇ High current capability
- ◇ High surge current capability
- ◇ Low reverse leakage
- ◇ Low power loss,high efficiency
- ◇ For use in low voltage,high frequency inventor,free Wheeling,and polarity protection application.

Mechanical Data

- ◇ Case:SMA(DO-214AC),Molded plastic
- ◇ Epoxy:UL 94V-0 rated flame retardant
- ◇ Polarity:Color band denotes cathode
- ◇ High temperature soldering guaranteed:
260°C/10 seconds/.375", (9.5mm) lead
Lengths at 5 lbs., (2.3kg) tension
- ◇ Mounting position:ANY
- ◇ Weight:0.064 gram

REVERSE VOLTAGE: 1000 V
FORWARD CURRENT: 1.0 A
SMA/DO-214AC



Dimensions in inches and(millimeters)

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,derate current by 20%.

Type Number	Symbol	ES1MSA	Units
Marking code		ES1MS	
Maximum Repetitive Peak Reverse Voltage	V_{RRM}	1000	V
Maximum Working Peak Reverse Voltage	V_{RWM}	1000	V
Maximum RMS Voltage	V_{RMS}	700	V
Maximum DC Blocking Voltage	V_{DC}	1000	V
Maximum Average Forward Rectified Current .TL=75°C	$I_{F(AV)}$	1.0	A
Peak Forward Surge Current, 8.3ms Single Half Sine-wave Superimposed on Rated Load(JEDEC method)	I_{FSM}	30	A
$I^2 t$ Rating for Fusing (t < 8.3ms)	$I^2 T$	3.375	A ² s
Maximum Instantaneous Forward Voltage @ $I_F=1.0A, T_J=25^\circ C$	V_F	2.40	V
Maximum DC Reverse current @ $V_R=800V$	$T_A=25^\circ C,$	5.0	μA
	$T_A=125^\circ C,$	200	μA
Maximum Reverse Recovery Time($I_F=0.5A, I_R=1.0A, I_{RR}=0.25A$)	T_{rr}	35	nS
Typical junction capacitance(Measured at 1MHz and applied reverse voltage of 4.0V D.C.)	C_J	20	pF
Maximum thermal resistance (PCB mounted on 0.2x0.2" (5.0x5.0mm)copper pad areas)	$R_{\theta JA}$	75	°C/W
Operating temperature range	T_J	-55 to +150	°C
Storage temperature range	T_{STG}	-55 to +150	°C

RATINGS AND CHARACTERISTIC CURVES

FIG.1- MAXIMUM FORWARD CURRENT DERATING CURVE

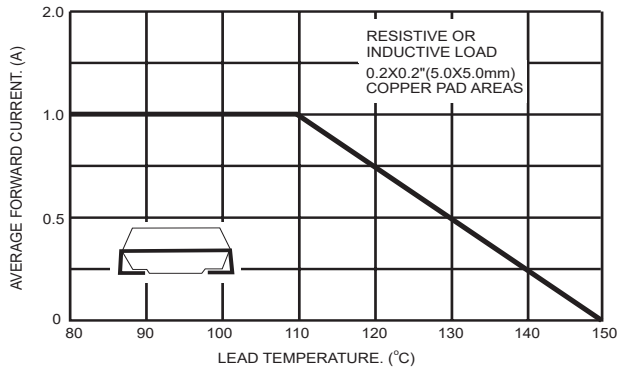


FIG.3- MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

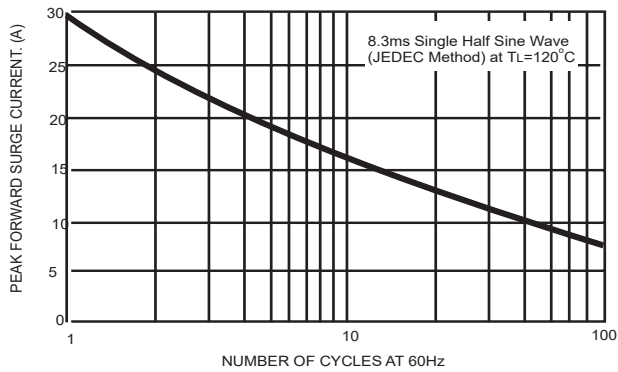


FIG.4- TYPICAL JUNCTION CAPACITANCE

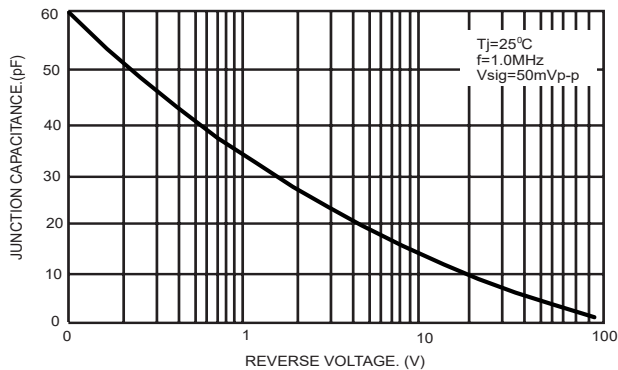


FIG.2- TYPICAL REVERSE CHARACTERISTICS

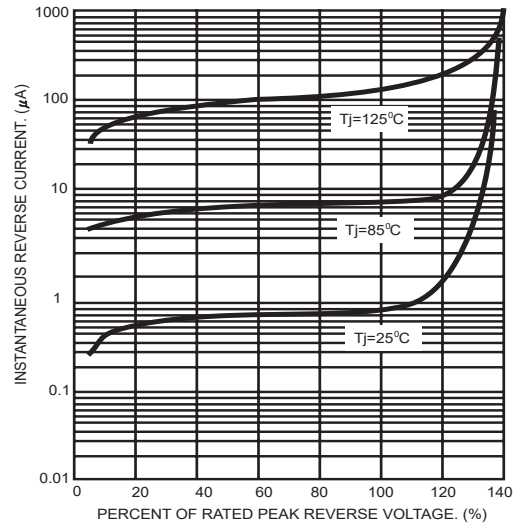


FIG.5- TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

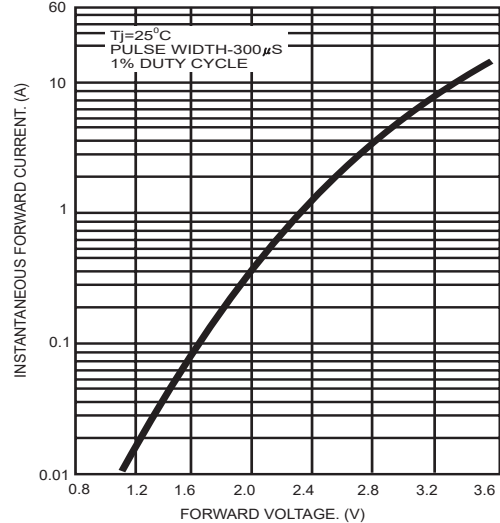
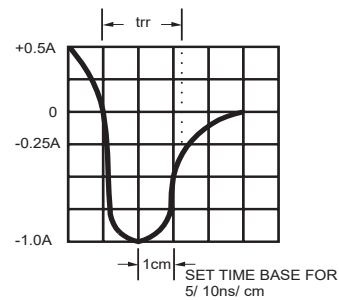
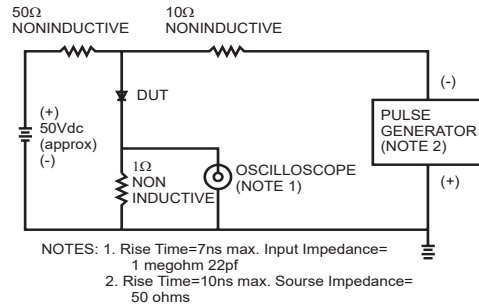


FIG.6- REVERSE RECOVERY TIME CHARACTERISTIC AND TEST CIRCUIT DIAGRAM



PACKAGE	SPQ/PCS	CARTON SPQ/PCS	CARTON SIZE/CM	CARTON GW/KG	CARTON NW/KG
SMA	5000/REEL	80000	36X30.6X31	12.00	11.00