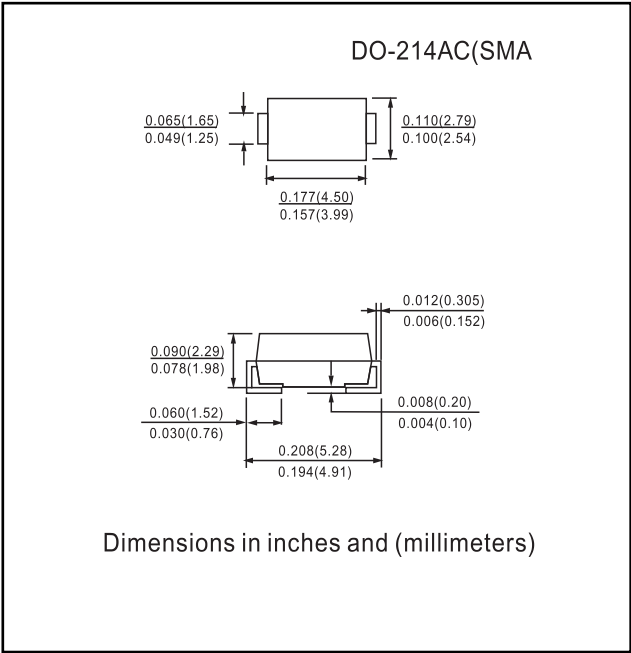




- FEATURES**
- Glass Passivated Die Construction
  - Super-Fast Recovery Time For High Efficiency
  - Low Forward Voltage Drop and High Current Capability
  - Surge Overload Rating to 50A Peak
  - Ideally Suited for Automated Assembly
  - Plastic Material: UL Flammability Classification Rating 94V-0



**MECHANICAL DATA**

Case: Molded Plastic  
 Terminals: Solder Plated Terminal - Solderable per MIL-STD-202, Method 208  
 Polarity: Cathode Band or Cathode Notch  
 SMA Weight: 0.064 grams (approx.)  
 SMB Weight: 0.093 grams (approx.)  
 Mounting Position: Any  
 Marking: Type Number

**MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS**

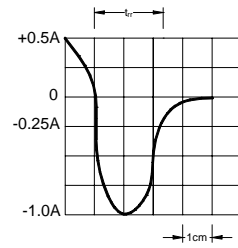
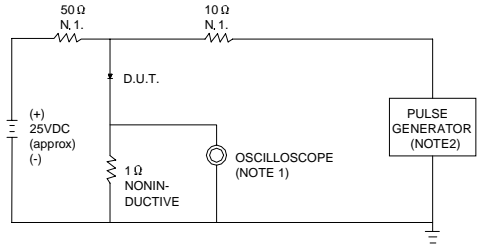
Ratings at 25°C ambient temperature unless otherwise specified.  
 Single phase, half wave, 60 Hz, resistive or inductive load. For capacitive load, derate by 20%.

		ES2AA	ES2BA	ES2CA	ES2DA	ES2GA	UNITS
Device marking code		EA	EB	EC	ED	EG	
Maximum recurrent peak reverse voltage	$V_{RRM}$	50	100	150	200	400	V
Maximum RMS voltage	$V_{RMS}$	35	70	105	140	210	V
Maximum DC blocking voltage	$V_{DC}$	50	100	150	200	400	V
Maximum average forward rectified current @ $T_A=110^{\circ}C$	$I_{F(AV)}$	2.0					A
Peak forward surge current 8.3ms single half-sine-wave superimposed on rated load @ $T_J=125^{\circ}C$	$I_{FSM}$	50					A
Maximum instantaneous forward voltage at 2.0 A	$V_F$	0.92			1.25		V
Maximum reverse current @ $T_A=25^{\circ}C$ at rated DC blocking voltage @ $T_A=125^{\circ}C$	$I_R$	10			350		$\mu A$
Typical reverse recovery time (Note1)	$t_{rr}$	25					ns
Typical junction capacitance (Note2)	$C_J$	18					pF
Typical thermal resistance	$R_{\theta JA}$	50					$^{\circ}C/W$
Operating junction temperature range	$T_J$	- 55 ---- + 150					$^{\circ}C$
Storage temperature range	$T_{STG}$	- 55 ---- + 150					$^{\circ}C$

NOTE: 1. Measured with  $I_F=0.5A$ ,  $I_R=1A$ ,  $I_{rr}=0.25A$ .  
 2. Measured at 1.0MHz and applied reverse voltage of 4.0V DC.  
 3. Thermal resistance from junction to ambient and junction to lead P.C.B. mounted on 0.27"X0.27"(7.0X7.0mm2) copper pad areas

**RATINGS AND CHARACTERISTIC CURVES ES2AA THRU ES2GA**

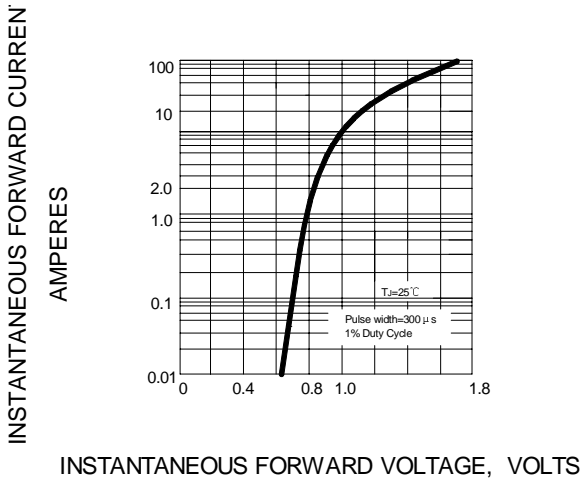
**FIG.1 -- TEST CIRCUIT DIAGRAM AND REVERSE RECOVERY TIME CHARACTERISTIC**



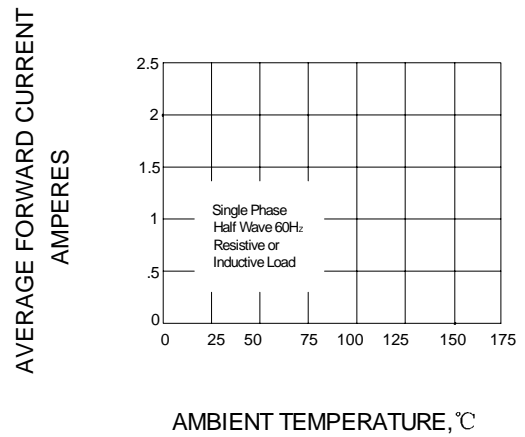
NOTES: 1. RISE TIME = 7ns MAX. INPUT IMPEDANCE = 1MΩ .22pF.  
2. RISE TIME = 10ns MAX. SOURCE IMPEDANCE = 50 Ω .

SET TIME BASE FOR 20/30 ns/cm

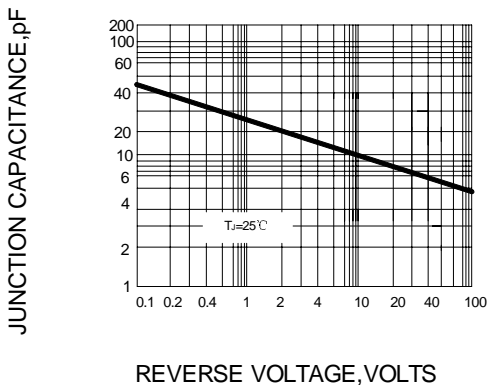
**FIG.2 -- TYPICAL FORWARD CHARACTERISTIC**



**FIG.3 -- FORWARD DERATING CURVE**



**FIG.4 -- TYPICAL JUNCTION CAPACITANCE**



**FIG.5 -- PEAK FORWARD SURGE CURRENT**

