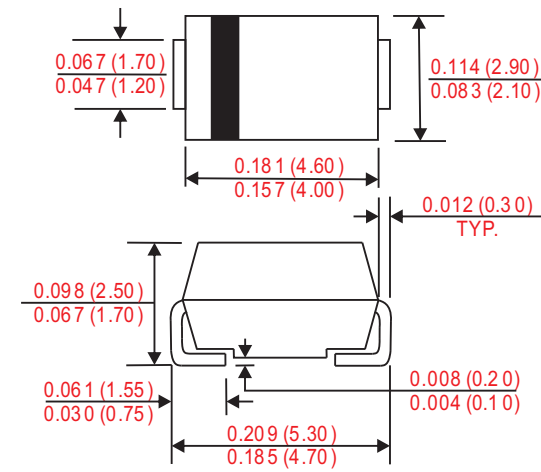


ES2AA THRU ES2MA

2 Amperes Surface Mount Super Fast Rectifiers
VOLTAGE : 50 TO 1000Volts

Features	Outline
• Low profile surface mounted application in order to optimize board space. • High current capability, low forward voltage drop. • High surge capability. • Superfast recovery time for switching mode application. • Glass passivated chip junction. • Suffix "G" indicates Halogen-free parts, ex. ES2AAG. • Lead-free parts meet environmental standards of MIL-STD-19500 /228	SMA(DO-214AC)  Dimensions in inches and (millimeters)
Mechanical data	
• Epoxy:UL94-V0 rated flame retardant • Case : Molded plastic, DO-214AC / SMA • Terminals : Solder plated, solderable per MIL-STD-750, Method 2026 • Polarity : Indicated by cathode band • Weight : 0.002 ounce, 0.064 gram	

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

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

Parameter	Symbol	ES2AA	ES2BA	ES2DA	ES2GA	ES2JA	ES2KA	ES2MA	UNIT
Making code		ES2A	ES2B	ES2D	ES2G	ES2J	ES2K	ES2M	
Maximum Recurrent 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	
Maximum DC Blocking Voltage	V _{DC}	50	100	200	400	600	800	1000	
Maximum Forward Voltage	V _F	0.95			1.25	1.70			V
Operating Temperature	T _J	-50 ~ +150							°C

Parameter	Conditions	Symbol	MIN.	TYP.	MAX.	UNIT
Forward rectified current		I_O			2.0	A
Forward surge current	8.3ms single half sine-wave superimposed on rate load (JEDEC method)	I_{FSM}			50	A
Reverse current	$V_R = V_{RRM}$ $T_A = 25^\circ\text{C}$	I_R			1.0	uA
	$V_R = V_{RRM}$ $T_A = 125^\circ\text{C}$				300	
Maximum reverse recovery time	$I_F = 0.5\text{A}$, $I_R = 1.0\text{A}$, $I_{RR} = 0.25\text{A}$	T_{rr}			35	nS
Typical thermal resistance	8.0mm ² (0.013mm thick) land areas	$R_{\theta JL}$		20		°C/W
Typical junction capacitance	f=1MHz and applied 4V DC reverse voltage	C_J		25		pF

ES2AA THRU ES2MA

2 Amperes Surface Mount Super Fast Rectifiers
VOLTAGE : 50 TO 1000Volts

Rating and characteristic curves

FIG.1-TYPICAL FORWARD CHARACTERISTICS

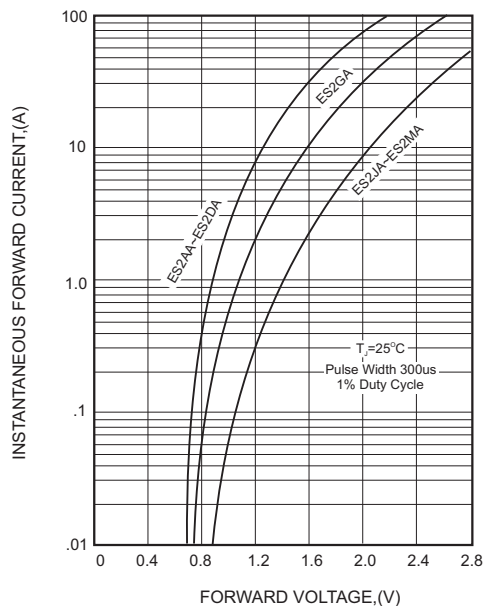


FIG.2-TYPICAL FORWARD CURRENT DERATING CURVE

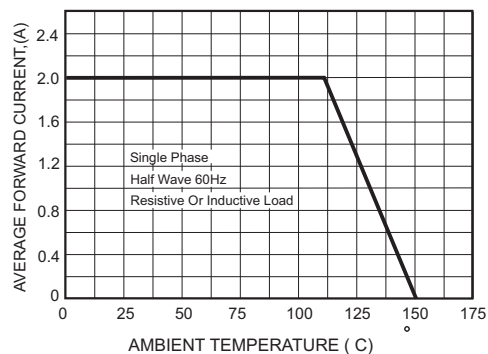


FIG.4-MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

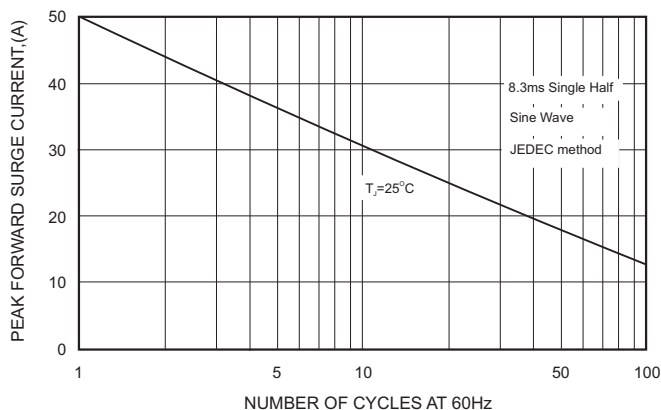
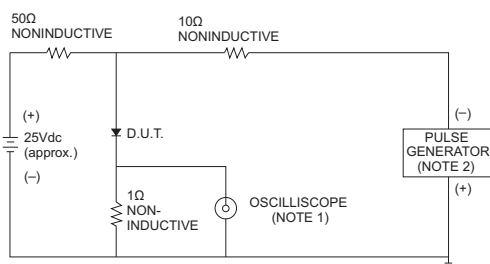


FIG.3- TEST CIRCUIT DIAGRAM AND REVERSE RECOVERY TIME CHARACTERISTICS



NOTES: 1. Rise Time= 7ns max., Input Impedance= 1 megohm.22pF.

2. Rise Time= 10ns max., Source Impedance= 50 ohms.

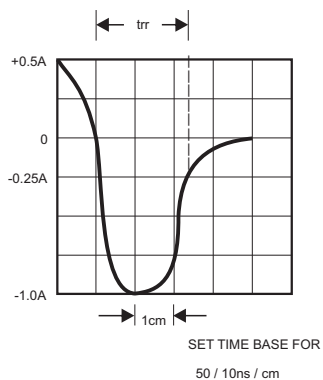


FIG.5-TYPICAL JUNCTION CAPACITANCE

