

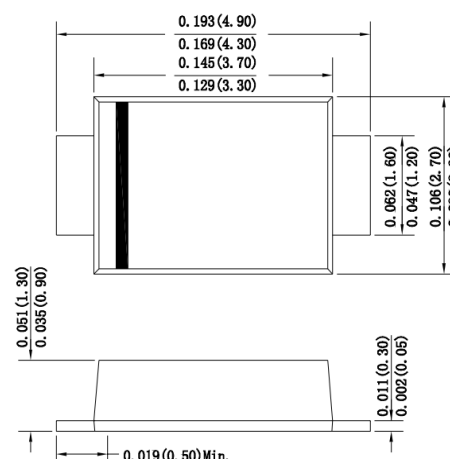
ES2A~ES2J

2.0Amp Super Fast Recovery Surface Mounted Rectifiers

Features

- ◆ The plastic package carries Underwriters Laboratory Flammability Classification 94V-0
- ◆ Idea for printed circuit board
- ◆ Glass passivated Junction chip
- ◆ Low reverse leakage
- ◆ High forward surge current capability
- ◆ High temperature soldering guaranteed
260°C/10 seconds at terminals

SMAF



Dimensions in inches and (millimeters)

Mechanical Data

Case : Molded plastic body

Terminals : Solder plated, solderable per MIL-STD-750, Method 2026

Polarity : Polarity symbol marking on body

Mounting Position : Any

Weight : 0.0014 ounce, 0.038 grams

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%.

Parameter	SYMBOLS	ES2A	ES2B	ES2C	ES2D	ES2F	ES2G	ES2J	UNITS	
Maximum repetitive peak reverse voltage	V_{RRM}	50	100	150	200	300	400	600	V	
Maximum RMS voltage	V_{RMS}	35	70	105	140	210	280	420	V	
Maximum DC blocking voltage	V_{DC}	50	100	150	200	300	400	600	V	
Maximum average forward rectified current at $T_L=100^\circ\text{C}$	$I_{(AV)}$	2.0							A	
Peak forward surge current, 8.3ms single half sine-wave superimposed on rated load	I_{FSM}	50.0							A	
Maximum instantaneous forward voltage at 2.0A	V_F	0.95				1.25		1.7	V	
Maximum DC reverse current $T_A=25^\circ\text{C}$ at rated DC blocking voltage $T_A=125^\circ\text{C}$	I_R	5.0				500				μA
Maximum reverse recovery time(Note 1)	T_{rr}	35				ns				
Typical junction capacitance (Note2)	C_J	55.0				pF				
Typical thermal resistance	R_{qJA}	70.0				$^\circ\text{C/W}$				
Operating junction and storage temperature range	T_J, T_{STG}	-55 to +150							$^\circ\text{C}$	

Note: 1.Reverse recovery time test condition: $I_F=0.5\text{A}$ $I_R=1.0\text{A}$ $I_{rr}=0.25\text{A}$

2.Measured at 1MHz and applied reverse voltage of 4.0V D.C.

Ratings And Characteristic Curves

FIG. 1- DERATING CURVE OUTPUT RECTIFIED CURRENT

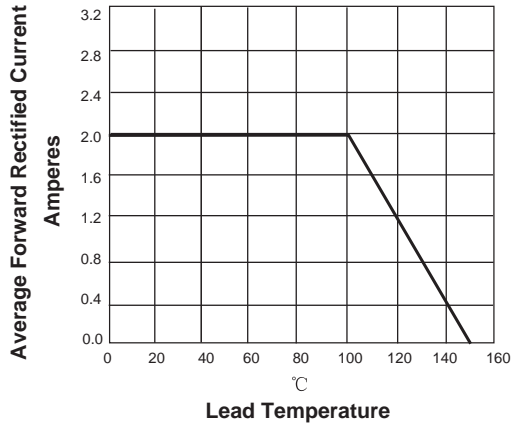


FIG. 2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT PER LEG

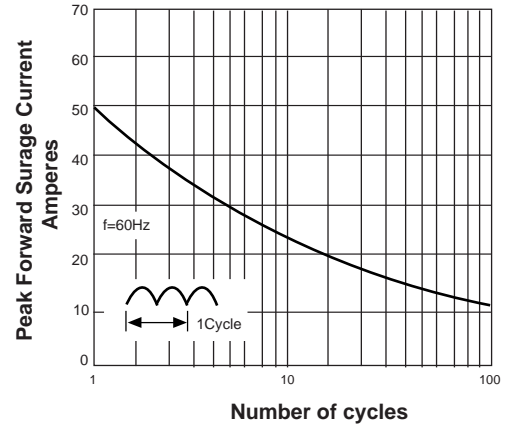


FIG. 3-TYPICAL FORWARD VOLTAGE CHARACTERISTICS

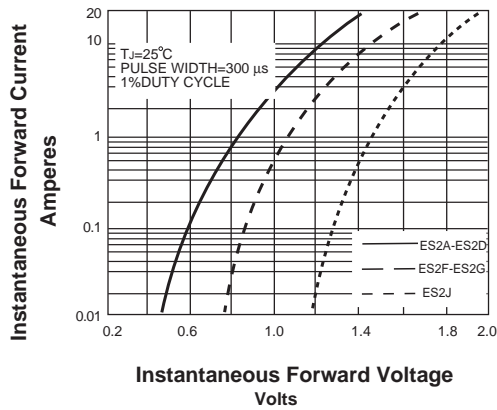


FIG. 4-TYPICAL REVERSE LEAKAGE CHARACTERISTICS

