ES1A_J

SURFACE MOUNT ULTRAFAST EFFICIENT RECTIFIER

Features

- Plastic package has Underwriters Laboratory
- Flammability Classification 94V-0
- Glass passivated chip junctions
- Ultrafast recovery times for high efficiency
- Low forward voltage, low power loss
- High temperature soldering guaranteed: 260°C/10 seconds on terminals
- RoHS Compliant Product

Mechanical Data

Case: JEDEC DO-214AC molded plastic body

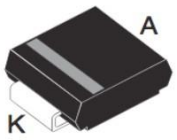
Terminals: Solder plated, solderable per MIL-STD-750,Method 2026

Polarity: Color band denotes cathode end

Weight: 0.002 ounces, 0.065 gram

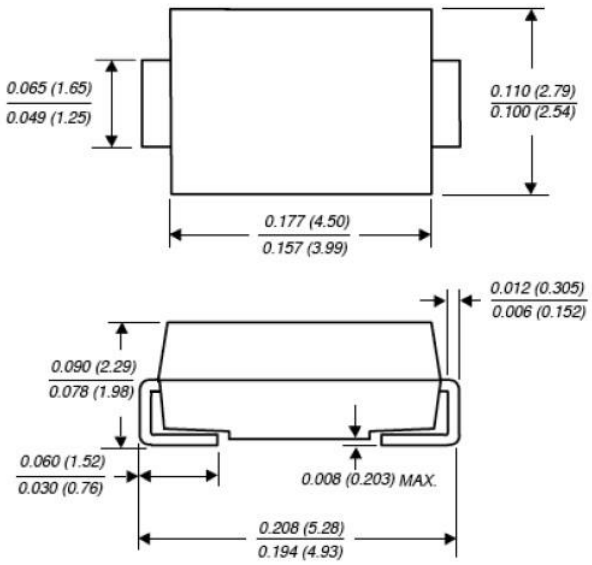
Packing & Order Information

5,000/Reel



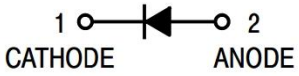
RoHS COMPLIANT

SMA (DO214AC)



Dimensions in inches and (millimeters)

Graphic symbol



MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25℃ ambient temperature unless otherwise specified

		ES1A	ES1B	ES1D	ES1G	ES1J	Unit
V_{RRM}	Maximum repetitive peak reverse voltage	50	100	200	400	600	V
V_{RWS}	Maximum RMS voltage	35	70	140	280	420	V
V_{DC}	Maximum DC blocking voltage	50	100	200	400	600	V
$I_{F(AV)}$	Maximum average forward rectified current at TL=110°C	1					A
I_{FSM}	Peak forward surge current 8.3ms single half-sine-wave	30					A
V_F	Maximum instantaneous forward voltage at IFM=1.0A	0.95				1.7	V
I_R	Maximum DC reverse current TJ=25°C At rated DC blocking voltage TA=100°C	5 200					uA

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Ratings at 25°C ambient temperature unless otherwise specified							
		ES1A	ES1B	ES1D	ES1G	ES1J	Unit
Trr	Maximum reverse recovery time	30				50	nS
Cj	Typical junction capacitance	19				19	PF
$R_{\theta JA}$	Maximum thermal resistance	75					°C/W
$R_{\theta JL}$		27					°C/W
T_{STG}	Storage temperature range	-55 to +150					°C

NOTE:

1. Pluse test: Pulse width 300us, duty cycle 1%

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■Ratings and Characteristic Curves

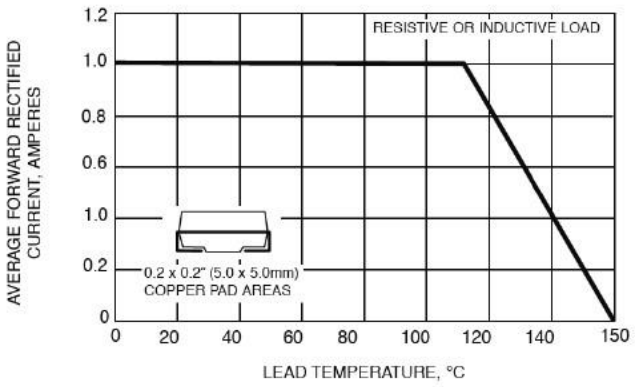


FIG.1-FORWARD DERATING CURVE

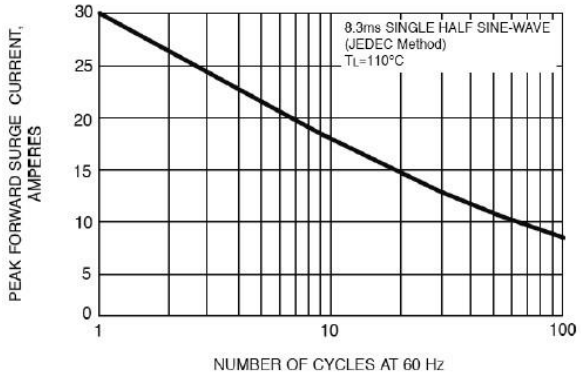


FIG.2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

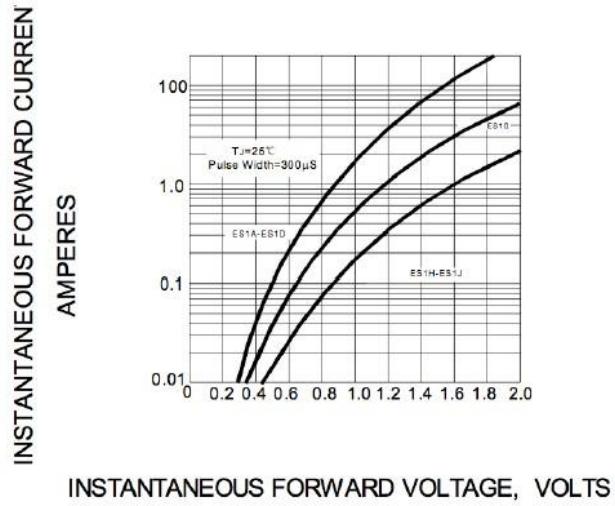


FIG.3-TYPICAL FORWARD CHARACTERISTICS

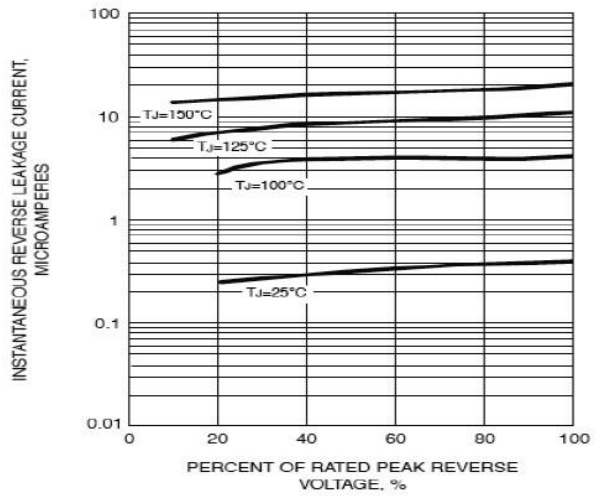


FIG.4-TYPICAL REVERSE CHARACTERISTICS

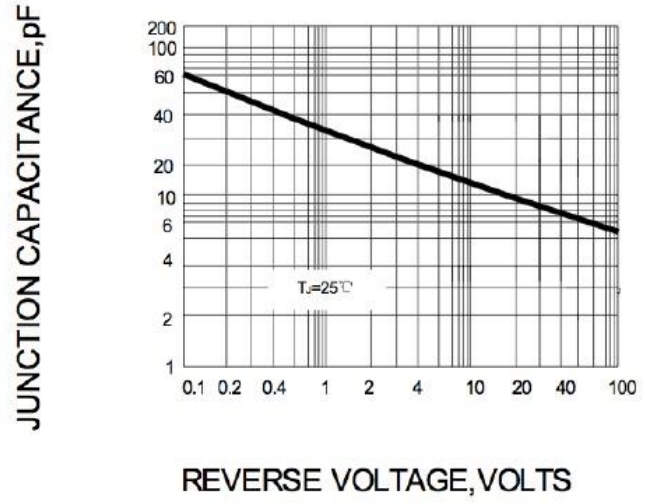


FIG.5-TYPICAL JUNCTION CAPACITANCE

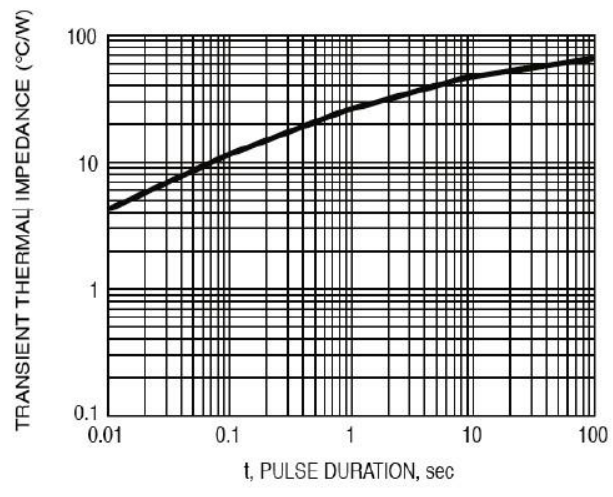


FIG.6-TYPICAL TRANSIENT THERMAL IMPEDANCE

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