



## ES2A THRU ES2J

DIODE

### 2.0AMP SURFACE MOUNT SUPERFAST RECOVERY RECTIFIER

#### DESCRIPTION

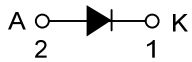
The UTC **ES2A THRU ES2J** is a surface mount super fast rectifier, it uses UTC's advanced technology to provide customers with high forward surge current and low reverse leakage, etc.

The UTC **ES2A THRU ES2J** is suitable for surface mounted applications.

#### FEATURES

- \* Low reverse leakage
- \* High forward surge current capability

#### SYMBOL



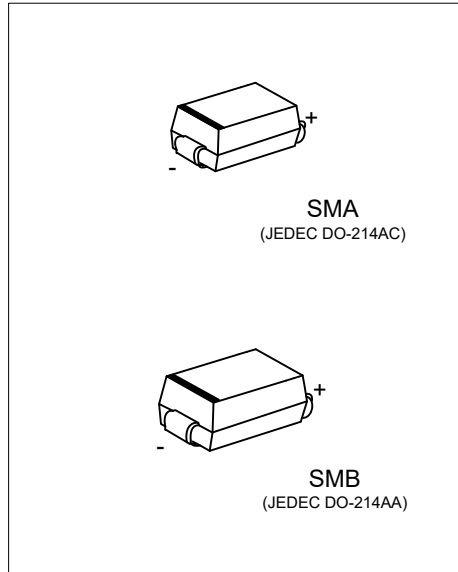
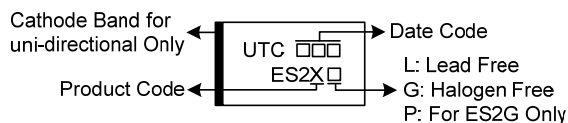
#### ORDERING INFORMATION

Ordering Number		Package	Pin Assignment		Packing
Lead Free	Halogen Free		1	2	
ES2XL-SMA-R	ES2XG-SMA-R	SMA	K	A	Tape Reel
ES2XL-SMB-R	ES2XG-SMB-R	SMB	K	A	Tape Reel
ES2GL-SMA-R	ES2GP-SMA-R	SMA	K	A	Tape Reel
ES2GL-SMB-R	ES2GP-SMB-R	SMB	K	A	Tape Reel

Note: Pin Assignment: A: Anode K: Cathode

<p>ES2XG-SMA-R</p> <p>(1) Packing Type (2) Package Type (3) Green Package</p>	<p>(1) R: Tape Reel (2) SMA: SMA, SMB: SMB (3) G: Halogen Free and Lead Free, L: Lead Free P: Halogen Free and Lead Free For ES2G only</p>
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#### MARKING



# ES2A THRU ES2J

## DIODE

### ■ ABSOLUTE MAXIMUM RATINGS ( $T_A=25^\circ\text{C}$ unless otherwise specified)

Single phase half-wave 60Hz, resistive or inductive load, for capacitive load current derate by 20%.

PARAMETER	SYMBOL	RATINGS							UNIT
		ES2A	ES2B	ES2C	ES2D	ES2E	ES2G	ES2J	
Peak Repetitive Reverse Voltage	$V_{RRM}$	50	100	150	200	300	400	600	V
DC Blocking Voltage	$V_{DC}$	50	100	150	200	300	400	600	V
RMS Voltage	$V_{RMS}$	35	70	105	140	210	280	420	V
Average Rectified Output Current $T_A=75^\circ\text{C}$	$I_o$	2.0							A
Peak Forward Surge Current, 8.3ms Single Half Sine-Wave Superimposed on Rated Load	$I_{FSM}$	50							A
Operating Junction Temperature Range	$T_J$	-55 ~ +150							$^\circ\text{C}$
Storage Temperature Range	$T_{STG}$	-55 ~ +150							$^\circ\text{C}$

Note: Absolute maximum ratings are those values beyond which the device could be permanently damaged. Absolute maximum ratings are stress ratings only and functional device operation is not implied.

### ■ THERMAL DATA

PARAMETER	SYMBOL	RATINGS	UNIT
Junction to Ambient	$\theta_{JA}$	34	$^\circ\text{C/W}$

Note: P.C.B. mounted with 0.2×0.2" (5.0×5.0mm) copper pad areas.

### ■ ELECTRICAL CHARACTERISTICS ( $T_A=25^\circ\text{C}$ unless otherwise specified)

Ratings at 25°C ambient temperature unless otherwise specified.

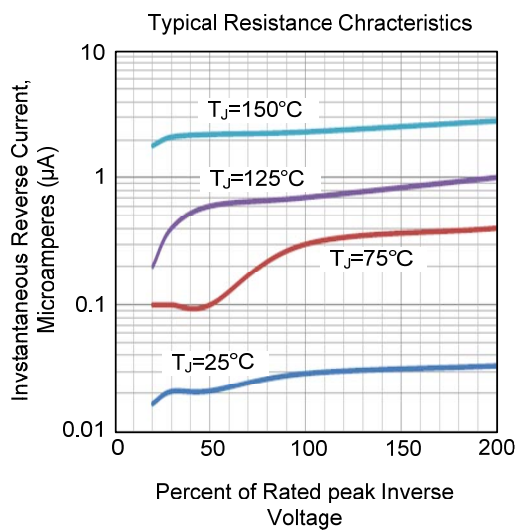
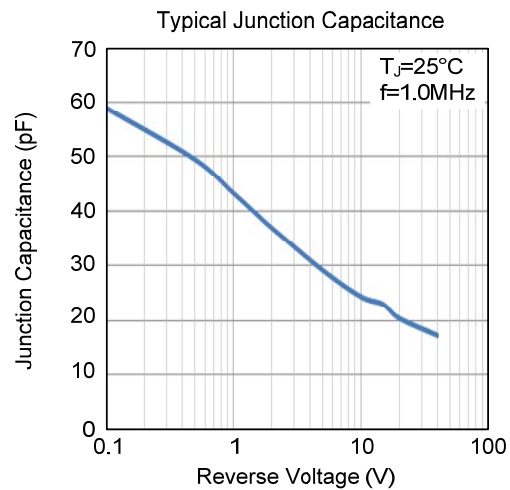
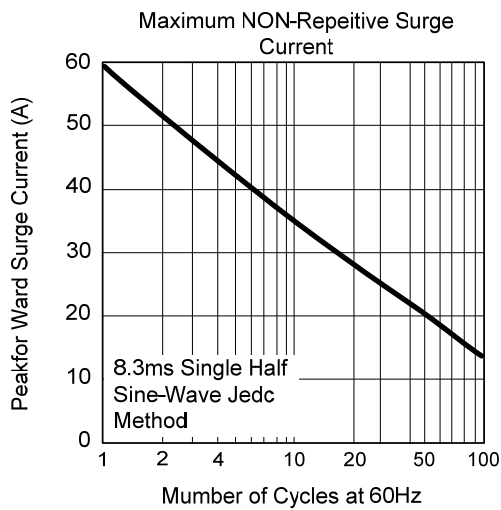
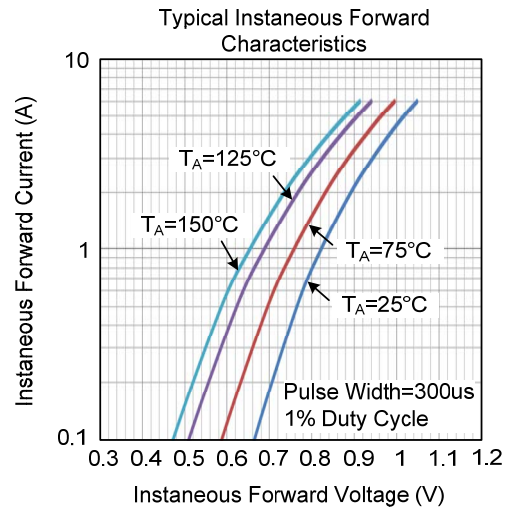
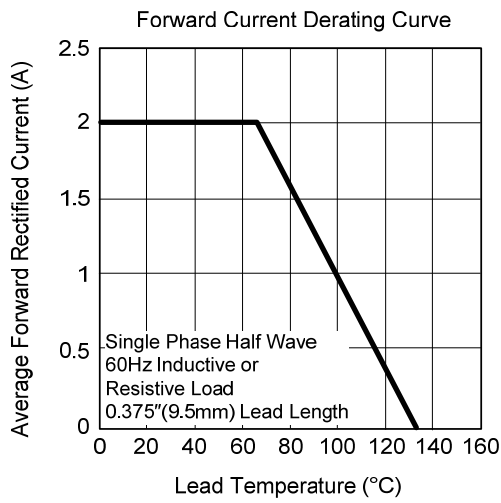
Single phase half-wave 60Hz, resistive or inductive load, for capacitive load current derate by 20%.

PARAMETER	SYMBOL	TEST CONDITIONS	RATINGS							UNIT
			ES2A	ES2B	ES2C	ES2D	ES2E	ES2G	ES2J	
Forward Voltage	$V_{FM}$	$I_F=2.0\text{A}$	0.95	0.95	0.95	0.95	1.25	1.25	1.7	V
Peak Reverse Current at Rated DC Blocking Voltage	$I_R$	$T_A=25^\circ\text{C}$	5.0							$\mu\text{A}$
		$T_A=100^\circ\text{C}$	50							$\mu\text{A}$
Reverse Recovery Time (Note 1)	$t_{rr}$		35							ns
Junction Capacitance (Note 2)	$C_J$		25							pF

Notes: 1. Reverse recovery 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.

## TYPICAL CHARACTERISTICS



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