



ES2AAQ THRU ES2JAQ

Surface Mount Super Fast Recovery Rectifier

Features

- Low profile package
- Ideal for automated placement
- Glass passivated chip junction
- "E" means AEC-Q101 qualified, with suffix "Q"

Typical Applications

For use in high frequency rectification of power supplies, inverters, converters, and freewheeling diodes for consumer, automotive and telecommunication.

Mechanical Data

- **Package:** DO-214AC (SMA)
Molding compound meets UL 94 V-0 flammability rating, RoHS-compliant, halogen-free
- **Terminals:** Tin plated leads, solderable per J-STD-002 and JESD22-B102
- **Polarity:** Cathode line denotes the cathode end

■Maximum Ratings (T_a=25 °C Unless otherwise specified)

PARAMETER	SYMBOL	UNIT	ES2AAQ	ES2BAQ	ES2CAQ	ES2DAQ	ES2FAQ	ES2GAQ	ES2HAQ	ES2JAQ
Device marking code			ES2AA	ES2BA	ES2CA	ES2DA	ES2FA	ES2GA	ES2HA	ES2JA

@60Hz sine wave, Resistance load, T

Peak reverse current I _O (Fig.1)	I _O	A	2.0							
Surge(non-repetitive)forward current @60Hz Half-sine wave,1 cycle, T _a =25	I _{FSM}	A	50							
Storage temperature	T _{stg}		-55~+175							
Junction temperature	T _J		-55~+175							

■Electrical Characteristics T_a=25 °C Unless otherwise specified

PARAMETER	SYMBOL	UNIT	TEST CONDITIONS	ES2AAQ	ES2BAQ	ES2CAQ	ES2DAQ	ES2FAQ	ES2GAQ	ES2HAQ	ES2JAQ
Maximum instantaneous forward voltage drop per diode	V _F	V	I _{FM} =2.0A	0.95				1.3		1.7	
Maximum reverse recovery time	T _{RR}	ns	I _F =0.5A, I _R =1.0A, I _{rr} =0.25A	35							
Typical junction capacitance	C _J	pF	V _R =4V, f=1MHz	30				25		20	

Maximum DC reverse current at rated DC blocking voltage per diode@ V_{RM}=V_{RRM}

I _{RRM}	μA	Ta=25	5
		Ta=125	100



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■ Thermal Characteristics $T_a=25$ Unless otherwise specified

PARAMETER	SYMBOL	UNIT	ES2AAQ	ES2BAQ	ES2CAQ	ES2DAQ	ES2FAQ	ES2GAQ	ES2HAQ	ES2JAQ
Thermal Resistance	$R_{\theta J-A}$	/W	85 ¹⁾							
	$R_{\theta J-L}$	/W	20 ¹⁾							

Note

(1) Thermal resistance from junction to ambient and from junction to lead mounted on P.C.B. with 0.2" x 0.2" (5.0 mm x 5.0 mm) copper pad areas

■ Characteristics (Typical)

Fig.1: I_O - T_L Curve

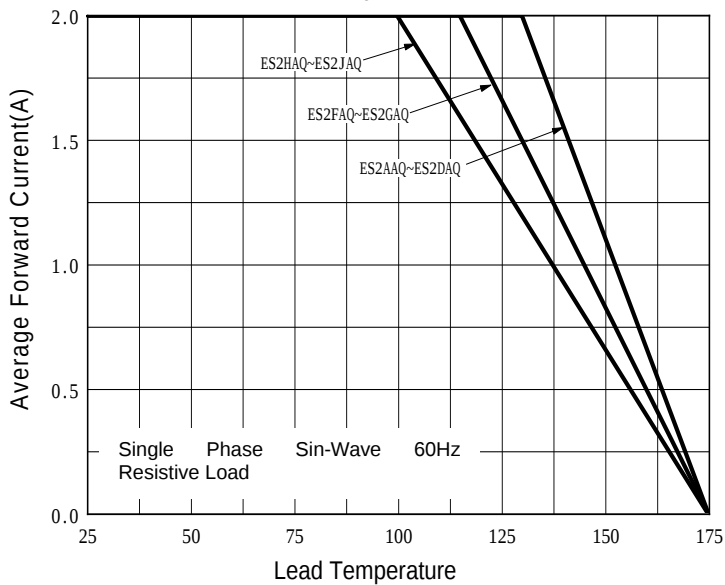


Fig.2: Surge Forward Current Capability

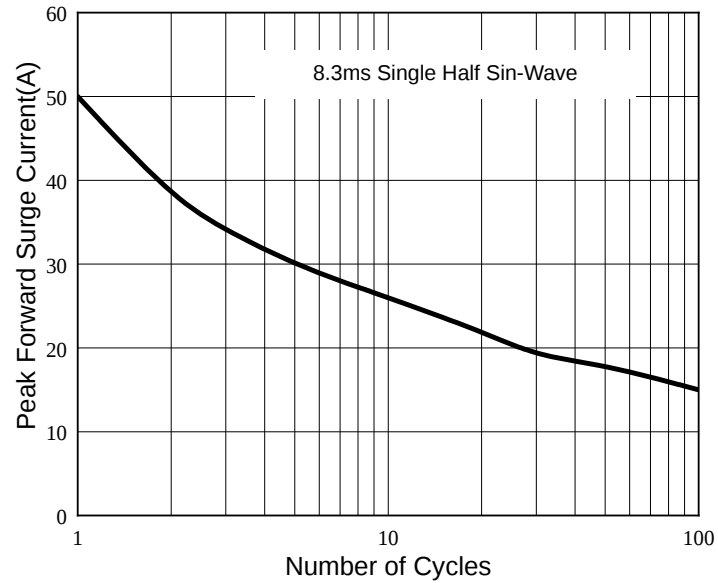


Fig.3: Typical Forward Characteristics

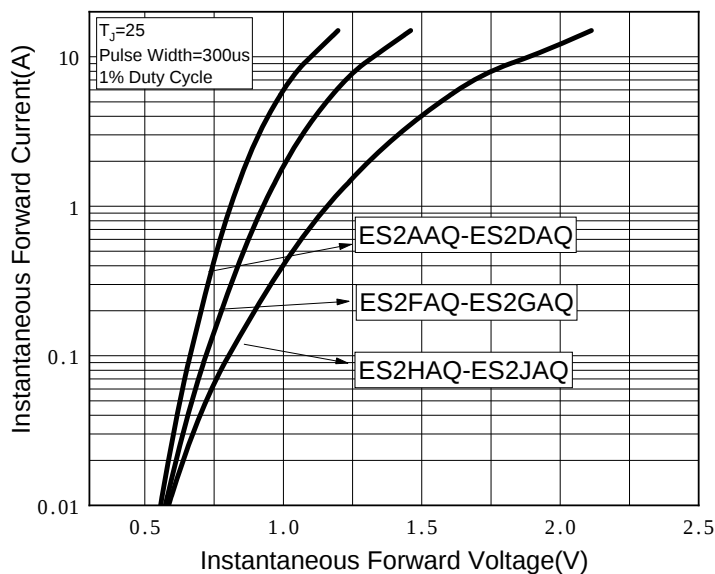
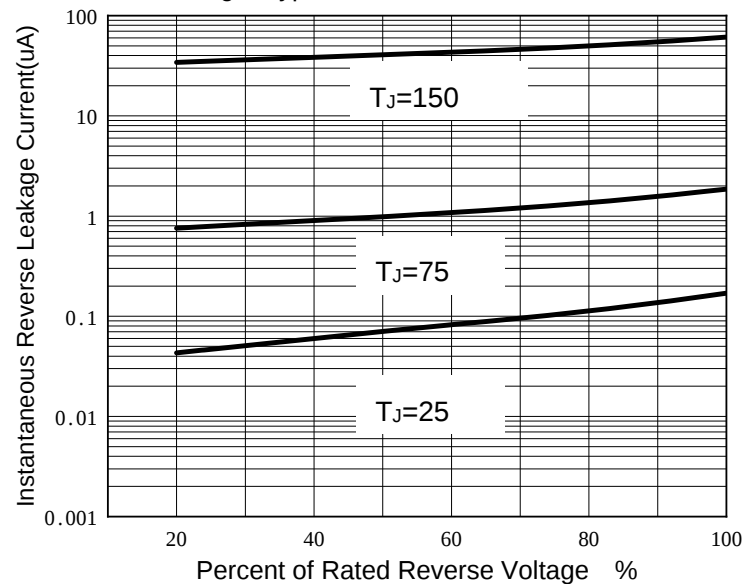


Fig.4: Typical Reverse Characteristics





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