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Product Termination Notification

Product Group: SIL/Tuesday September 15, 2026/PTN-SIL-076-2026-REV-0



Conversion to Copper (Cu) Wire – SQA470EJ and SQA470EEJ

For further information, please contact your regional Vishay office.

CONTACT INFORMATION

Americas

Vishay Siliconix
2565 Junction Ave
-
San Jose CA United States 95134
Phone: (408) 988-8000
Fax:
business-americas@vishay.com

Europe

Vishay Electronic GmbH
Dr.-Felix-Zandman-Platz 1
-
Selb Germany 95100
Phone: 49-9287-71 0
Fax: 49-9287-70435
business-europe@vishay.com

Asia

Vishay Intertechnology Asia Pte. Ltd
37A Tampines Street 92 #07-01
-
Singapore Singapore 528886
Phone: 65 6788 6668
Fax: 65 6788 0988
business-asia@vishay.com

Description of Change: The affected part numbers listed in this notification will be converted to a Copper bond wire material set. The new ordering code is SQA470CEJW-T1_GE3 and offers a long-term solution that is compatible with our latest package assembly methods. SQA470CEJW has identical silicon technology and similar silicon die design as SQA470EJ/SQA470EEJ. Device performance in the application will not be impacted. The SQA470CEJW has the same 2 x 2 mm package size with an optimized land pattern. While certain electrical parameters differ slightly, the key electrical characteristics remain closely aligned, making SQA470CEJW a suitable alternative to the SQA470EEJ/SQA470EJ (reference: SQA470CEJW Doc # 66845 Rev. A). There will be no change to the wafer fab location.

Reason for Change: Standardization of materials

Expected Influence on Quality/Reliability/Performance: None

Part Numbers/Series/Families Affected: SQA470EEJ-T1_GE3, SQA470EJ-T1_GE3,

Vishay Brand(S): Vishay Siliconix

Time Schedule:

Last Time Buy Date: Sunday March 14, 2027

Last Time Ship Date: Friday September 10, 2027

Sample Availability: Qualified samples of replacement product are available on request.

Product Identification: SQA470CEJW-T1_GE3

Qualification Data: AEC Q101 qualification data of replacement product is available. Qualification PPAP is available on request.

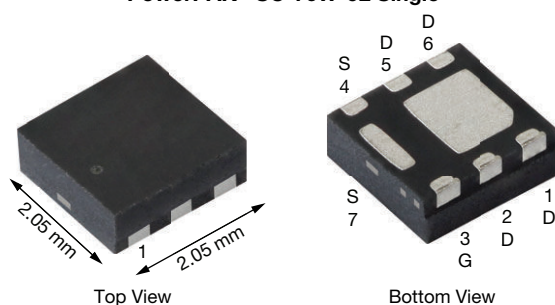
This PTN is considered approved, without further notification, unless we receive specific customer concerns before Sunday December 13, 2026 or as specified by contract.

Issued By: Lance Gurrola, automostechsupport@vishay.com



Automotive N-Channel 30 V (D-S) 175 °C MOSFET

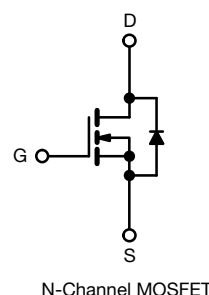
PowerPAK® SC-70W-6L Single



Marking Code: QXXXXXX

FEATURES

- TrenchFET® power MOSFET
- AEC-Q101 qualified
- Wettable flank terminals
- 100 % R_g and UIS tested
- Material categorization:
for definitions of compliance please see
www.vishay.com/doc?99912

RoHS
COMPLIANT
HALOGEN
FREE

N-Channel MOSFET

PRODUCT SUMMARY

V _{DS} (V)	30
R _{DS(on)} (Ω) at V _{GS} = 4.5 V	0.065
R _{DS(on)} (Ω) at V _{GS} = 2.5 V	0.095
I _D (A)	2.25
Configuration	Single

ORDERING INFORMATION

Package	PowerPAK SC-70W-6L
Lead (Pb)-free and halogen-free	SQA470CEJW (for detailed order number please see www.vishay.com/doc?79776)

ABSOLUTE MAXIMUM RATINGS (T_C = 25 °C, unless otherwise noted)

PARAMETER	SYMBOL	LIMIT	UNIT
Drain-source voltage	V _{DS}	30	V
Gate-source voltage	V _{GS}	± 12	
Continuous drain current ^a	I _D	2.25	A
		2.25	
Continuous source current (diode conduction) ^a	I _S	2.25	
Pulsed drain current ^a	I _{DM}	9	
Single pulse avalanche current	I _{AS}	9	mJ
Single pulse avalanche energy	E _{AS}	4	
Maximum power dissipation	P _D	13.6	W
		4.5	
Operating junction and storage temperature range	T _J , T _{stg}	-55 to +175	°C
Soldering recommendations (peak temperature) ^{d, e}		260	

THERMAL RESISTANCE RATINGS

PARAMETER	SYMBOL	LIMIT	UNIT
Junction-to-ambient	R _{thJA}	90	°C/W
Junction-to-case (drain)	R _{thJC}	11	

Notes

- Package limited
- Pulse test; pulse width ≤ 300 μs, duty cycle ≤ 2 %
- When mounted on 1" square PCB (FR4 material)
- See solder profile (www.vishay.com/doc?73257). The PowerPAK SC-70W-6L is a leadless package and features wettable flank terminals. The end of the lead terminal is plated with tin.
- Rework conditions: manual soldering with a soldering iron is not recommended for leadless components



SPECIFICATIONS (T _C = 25 °C, unless otherwise noted)							
PARAMETER	SYMBOL	TEST CONDITIONS		MIN.	TYP.	MAX.	UNIT
Static							
Drain-source breakdown voltage	V _{DS}	V _{GS} = 0 V, I _D = 250 μA		30	-	-	V
Gate-source threshold voltage	V _{GS(th)}	V _{DS} = V _{GS} , I _D = 250 μA		0.6	1.0	1.3	
Gate-source leakage	I _{GSS}	V _{DS} = 0 V, V _{GS} = ± 12 V		-	-	± 100	nA
Zero gate voltage drain current	I _{DSS}	V _{GS} = 0 V	V _{DS} = 30 V	-	-	1	μA
		V _{GS} = 0 V	V _{DS} = 30 V, T _J = 125 °C	-	-	50	
		V _{GS} = 0 V	V _{DS} = 30 V, T _J = 175 °C	-	-	250	
On-state drain current ^a	I _{D(on)}	V _{GS} = 4.5 V	V _{DS} ≥ 5 V	10	-	-	A
Drain-source on-state resistance ^a	R _{DS(on)}	V _{GS} = 4.5 V	I _D = 3 A	-	0.038	0.065	Ω
		V _{GS} = 4.5 V	I _D = 3 A, T _J = 125 °C	-	-	0.077	
		V _{GS} = 4.5 V	I _D = 3 A, T _J = 175 °C	-	-	0.090	
		V _{GS} = 2.5 V	I _D = 3 A	-	0.048	0.095	
Forward transconductance ^b	g _{fs}	V _{DS} = 15 V, I _D = 2 A		-	16	-	S
Dynamic ^b							
Input capacitance	C _{iss}	V _{GS} = 0 V	V _{DS} = 20 V, f = 1 MHz	-	312	440	pF
Output capacitance	C _{oss}			-	56	80	
Reverse transfer capacitance	C _{rss}			-	29	41	
Total gate charge ^c	Q _g	V _{GS} = 4.5 V	V _{DS} = 15 V, I _D = 4.2 A	-	4.6	6	nC
Gate-source charge ^c	Q _{gs}			-	0.65	-	
Gate-drain charge ^c	Q _{gd}			-	0.9	-	
Gate resistance	R _g	f = 1 MHz		1.75	3.46	5.20	Ω
Turn-on delay time ^c	t _{d(on)}	V _{DD} = 10 V, R _L = 10 Ω I _D ≅ 1 A, V _{GEN} = 4.5 V, R _g = 1 Ω		-	7.3	11	ns
Rise time ^c	t _r			-	18	26	
Turn-off delay time ^c	t _{d(off)}			-	21	32	
Fall time ^c	t _f			-	9.5	14	
Source-Drain Diode Ratings and Characteristics ^b							
Pulsed current ^a	I _{SM}			-	-	9	A
Forward voltage	V _{SD}	I _F = 4.5 A, V _{GS} = 0 V		-	0.75	1.2	V
Body diode reverse recovery time	t _{rr}	I _F = 1.5 A, di/dt = 100 A/μs		-	12	24	ns
Body diode reverse recovery charge	Q _{rr}			-	4	9	nC
Reverse recovery fall time	t _a			-	7	-	ns
Reverse recovery rise time	t _b			-	5	-	
Body diode peak reverse recovery current	I _{RM(REC)}			-	-0.8	-	A

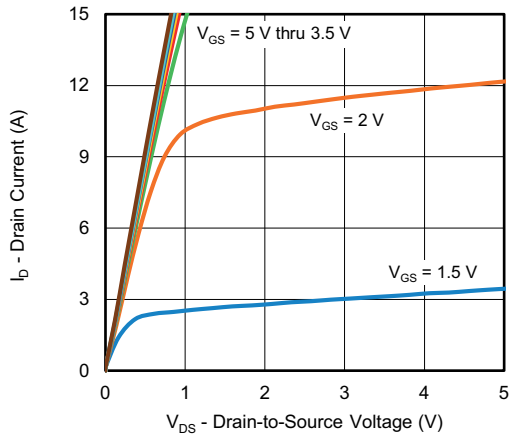
Notes

- a. Pulse test; pulse width $\leq 300\text{ }\mu\text{s}$, duty cycle $\leq 2\%$
b. Guaranteed by design, not subject to production testing
c. Independent of operating temperature

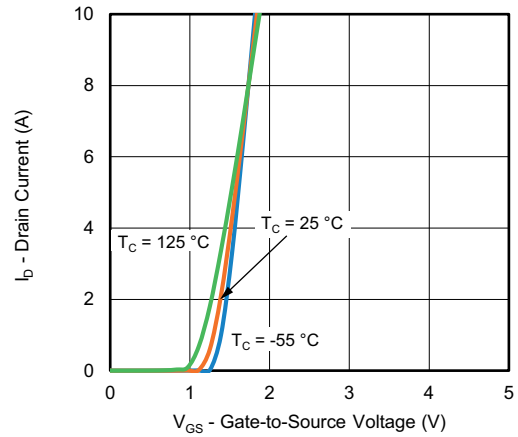
Stresses beyond those listed under "Absolute Maximum Ratings" may cause permanent damage to the device. These are stress ratings only, and functional operation of the device at these or any other conditions beyond those indicated in the operational sections of the specifications is not implied. Exposure to absolute maximum rating conditions for extended periods may affect device reliability.



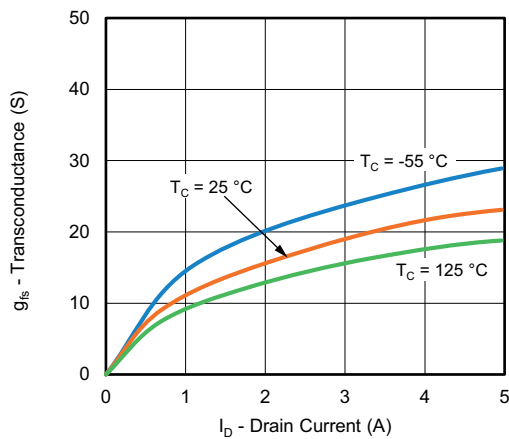
TYPICAL CHARACTERISTICS ($T_A = 25\text{ }^{\circ}\text{C}$, unless otherwise noted)



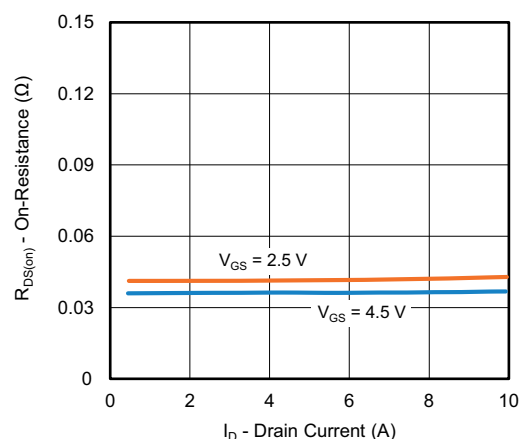
Output Characteristics



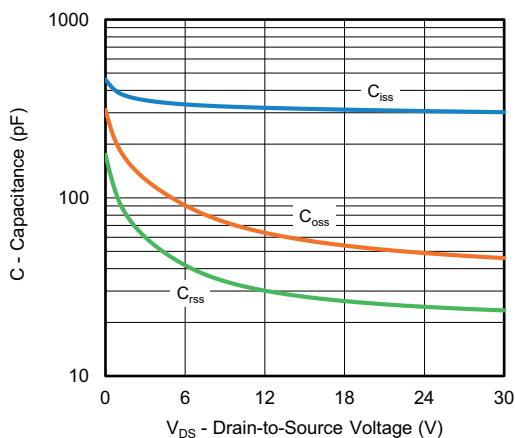
Transfer Characteristics



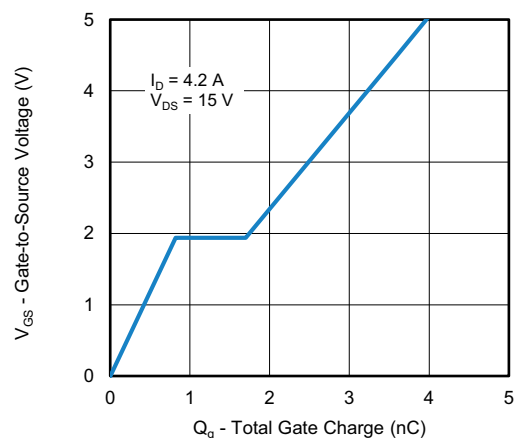
Transconductance



On-Resistance vs. Drain Current



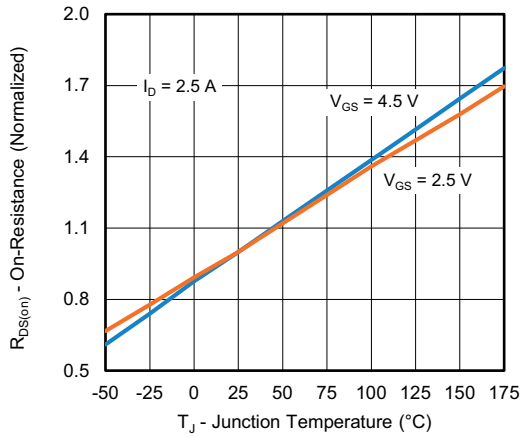
Capacitance



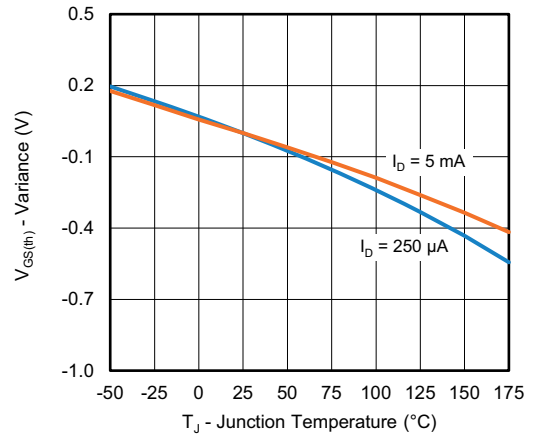
Gate Charge



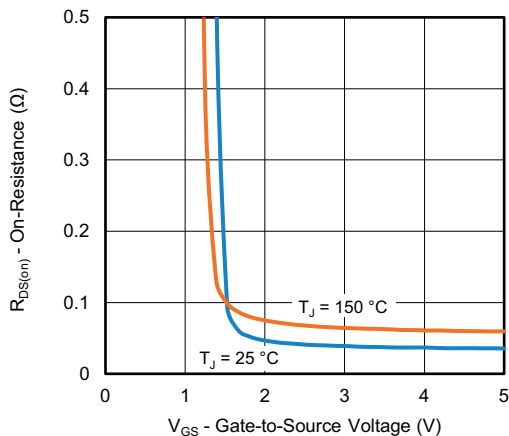
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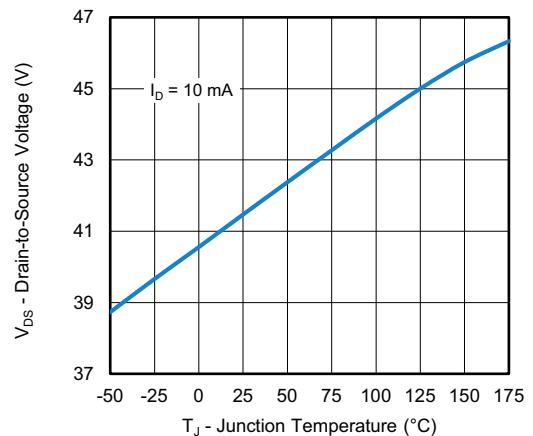
On-Resistance vs. Junction Temperature



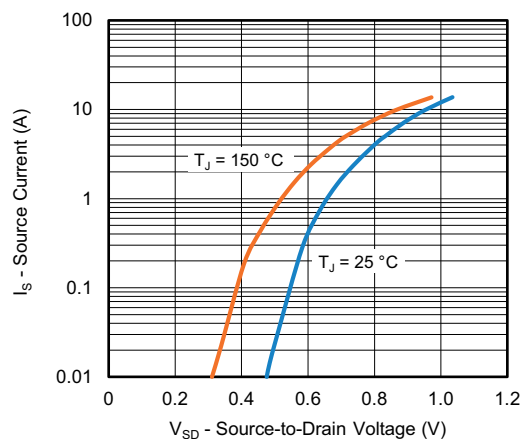
Threshold Voltage



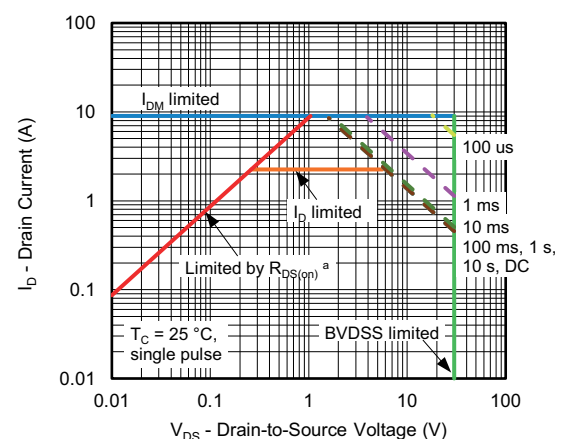
On-Resistance vs. Gate-to-Source Voltage



Drain Source Breakdown vs. Junction Temperature



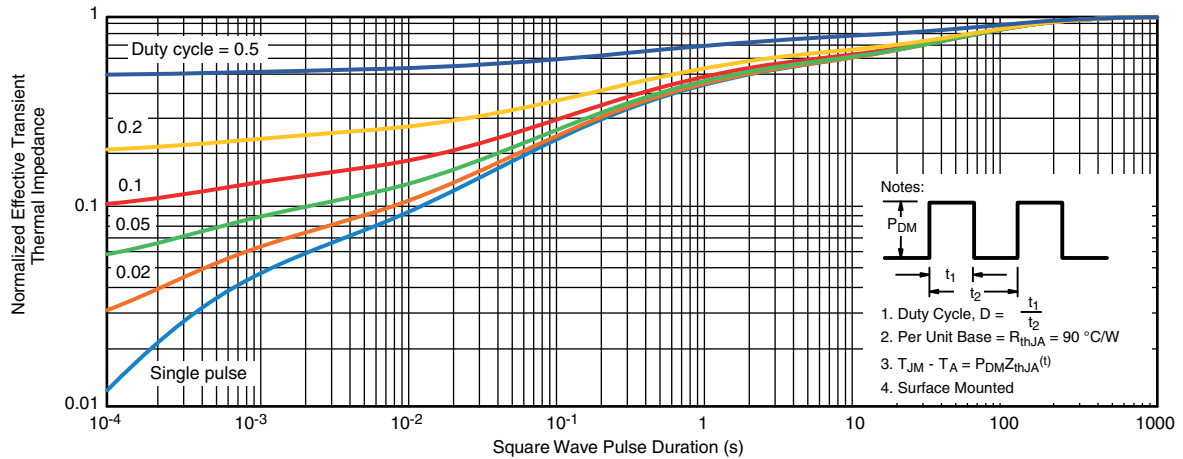
Source Drain Diode Forward Voltage



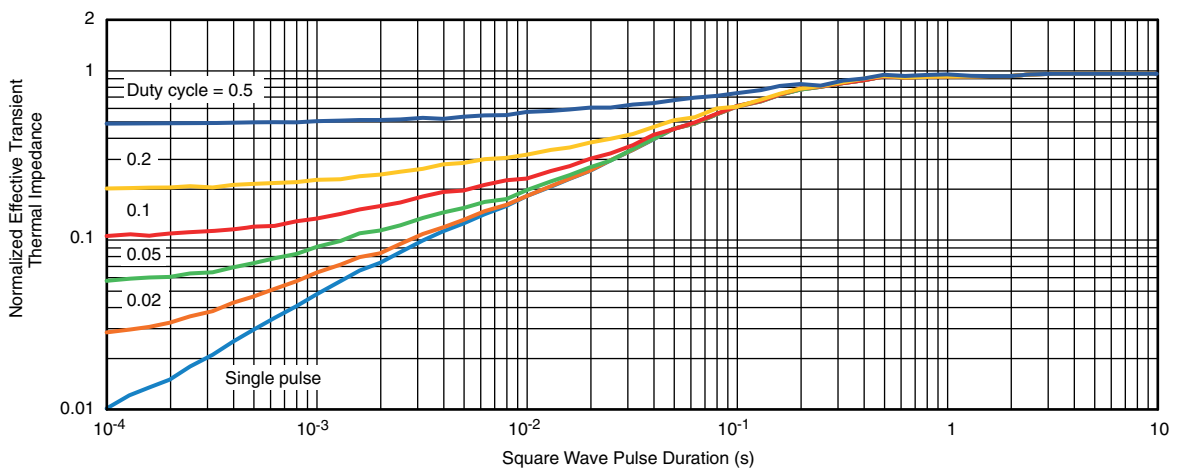
Safe Operating Area



THERMAL RATINGS ($T_A = 25\text{ }^{\circ}\text{C}$, unless otherwise noted)



Normalized Thermal Transient Impedance, Junction-to-Ambient



Normalized Thermal Transient Impedance, Junction-to-Case

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Vishay Material Code	Customer Material	Location
SQA470EEJ-T1_GE3	SLNSQA470EEJ-T1-GE3	Ft Worth
SQA470EJ-T1_GE3	SLNSQA470EJ-T1-GE3	Ft Worth
SQA470EJ-T1_GE3	SQA470EJ-T1_GE3DEAL	Singapore