

400 W Unidirectional and Bidirectional Transient Voltage Suppressor

<p style="text-align: center; font-weight: bold; font-size: 1.2em;">DO-204AL (DO-41)</p> <div style="text-align: center; margin-top: 20px;"> </div>	<p style="text-align: center;">Peak Pulse Power Rating At 1 ms. Esp. 400 W</p> <div style="text-align: center; margin-top: 10px;"> </div> <p>FEATURE</p> <ul style="list-style-type: none"> Glass passivated chip junction Hiperectifier structure for high reliability 400 W peak pulse power capability with a 10/1000 μs waveform, repetitive rate (duty cycle): 0.01 % Solder dip 260 °C, 10s AEC-Q101 qualified Component in accordance to RoHS 2011/65/EU and WEEE 2002/96/EC Excellent clamping capability Very fast response time Low incremental surge resistance Available in uni-directional and bidirectional <div style="text-align: right; margin-top: 10px;"> Available RoHS COMPLIANT </div> <p>MECHANICAL DATA</p> <ul style="list-style-type: none"> Case: DO-204AL (DO-41). Epoxy meets UL 94V-0 flammability rating. Polarity: For unidirectional types the color band denotes cathode end. Terminals: Matte tin plated leads, solderable per MIL-STD-750 Method 2026, J-STD-002 and JESD22-B102. Consumer grade, meets JESD 201 class 1A whisker test. <p>TYPICAL APPLICATIONS</p> <p>Used in sensitive electronics protection against voltage transients induced by inductive load switching and lighting on ICs, MOSFET, signal lines of sensor units for consumer, computer, industrial, automotive and telecommunication.</p>
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Maximum Ratings and Electrical Characteristics at 25 °C

P_{pp}	Peak pulse power with 10/1000 μ s exponential pulse	400 W
I_{FSM} <small>(Note 1)</small>	Non repetitive surge peak forward current (t=8.3 ms) <small>(Jedec Method)</small>	40 A
T_j	Operating temperature range	- 65 to + 175 °C
T_{stg}	Storage temperature range	- 65 to + 175 °C
$P_{M(AV)}$	Steady state power dissipation (l=10 mm)	1 W

Electrical Characteristics at Tamb = 25 °C

V_F	Max. forward voltage drop at $I_F = 25$ A <small>(Note 1)</small>	3.5 V
R_{thj-l}	Max. thermal resistance (l=10 mm)	60 °C/W

Type	Maximum Reverse Leakage Current		(1) Breakdown Voltage				Max. Clamping Voltage	
	I_{RM} at V_{RM}		V_{BR} at I_R			V_{CL} at I_{PP}		
	(μ A)	(V)	Min.	Nom.	Max.	(mA)	(V)	(A)
Unidirectional								
P4KE18	5	14.5	16.2	18	19.8	1	26.5	15.1
P4KE18A	5	15.3	17.1	18	18.9	1	25.2	16
P4KE200A	5	171	190	200	210	1	274	1.5
P4KE550	1	495	550	610	671	0.1	760	0.4
Bidirectional								
P4KE15CA	1	12.8	14.3	15	15.8	1	21.2	18.9

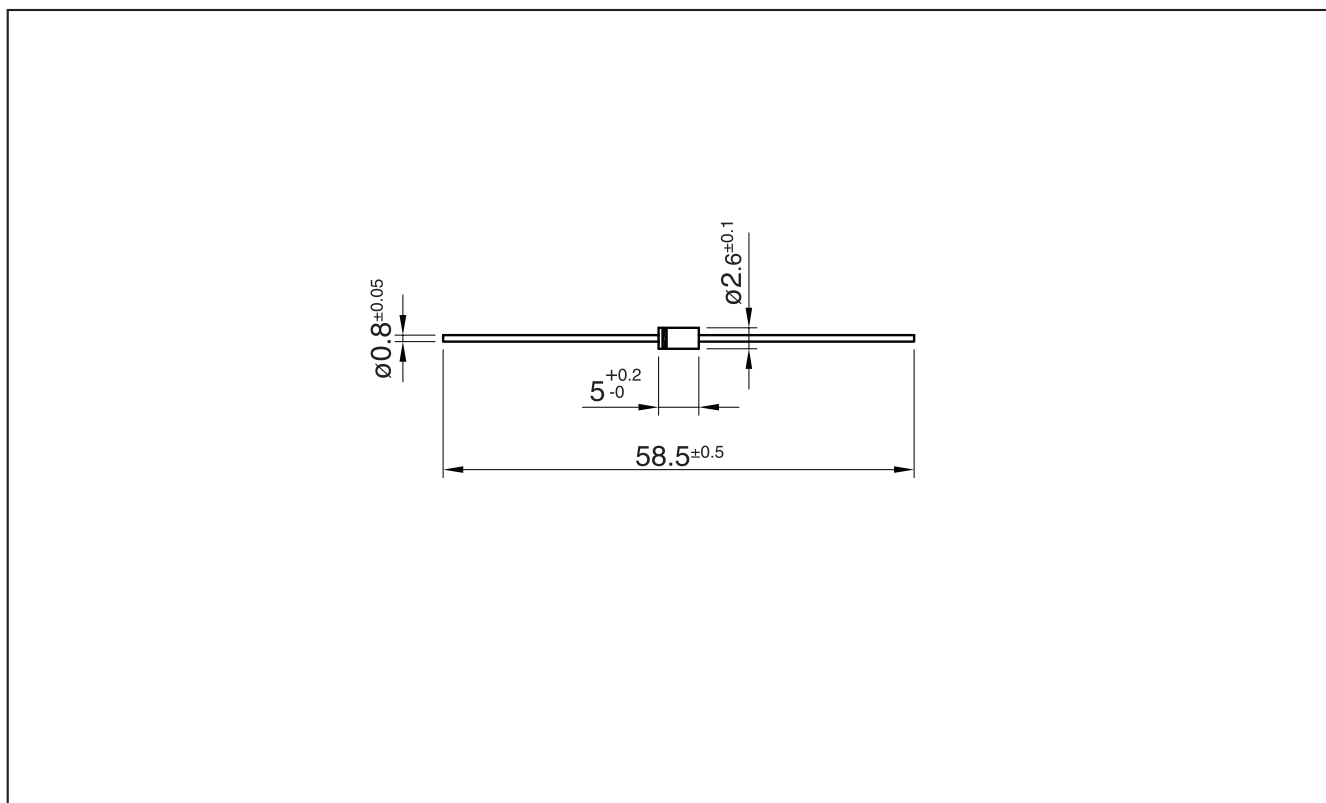
(1) Valid only for Unidirectionals

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Ordering information

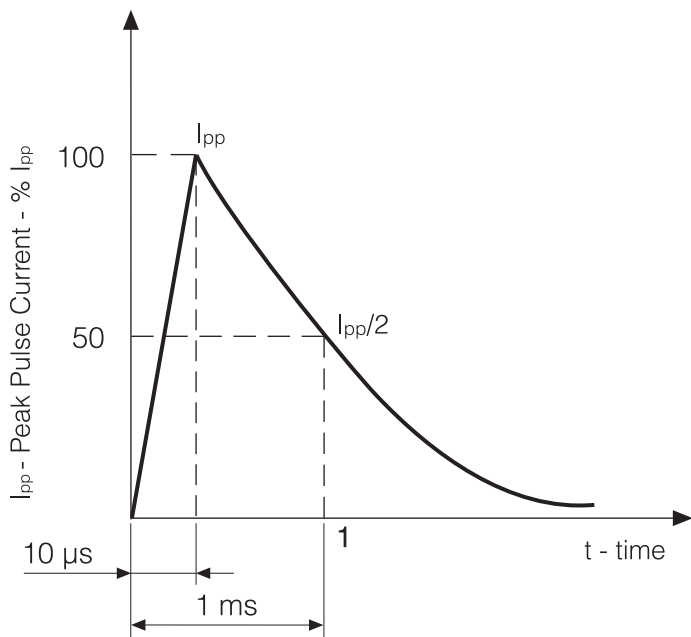
PREFERRED P/N	PACKAGE CODE	DELIVERY MODE	BASE QUANTITY	UNIT WEIGHT (g)
P4KE15CA AMP	AMP	AMMO BOX	5,000	0.325
P4KE15CA TR	TR	14" diameter tape and reel	5,000	0.325
P4KE15CA HE3 AMP	AMP	AMMO BOX	5,000	0.325
P4KE15CA HE3 TR	TR	14" diameter tape and reel	5,000	0.325

Package Outline Dimensions: (mm) DO-204AL (DO-41)

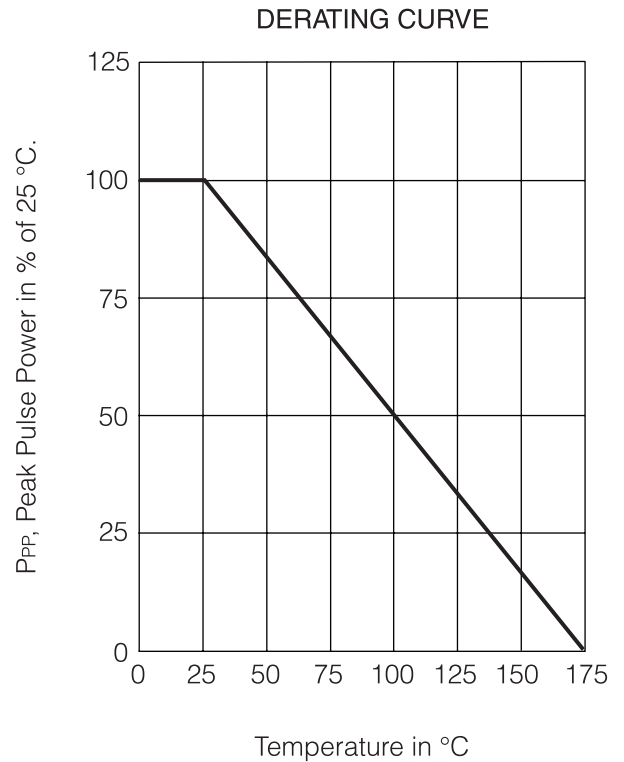


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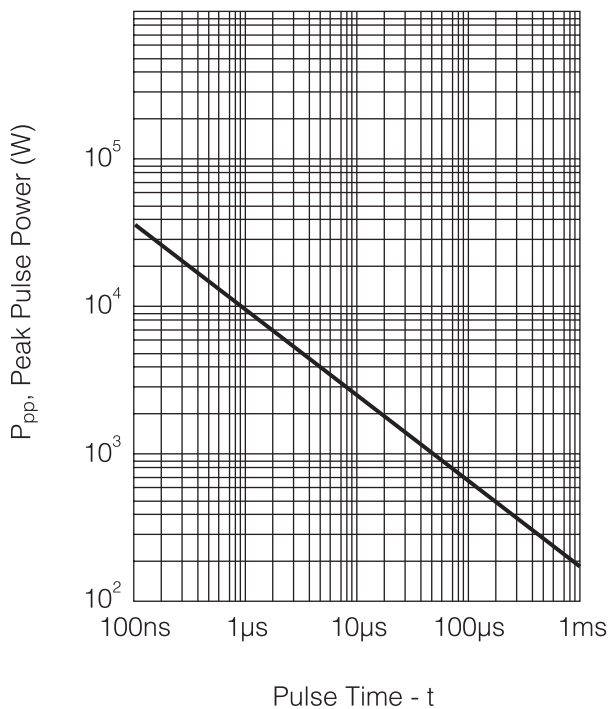
Rating and Characteristics (Ta 25 °C unless otherwise noted)



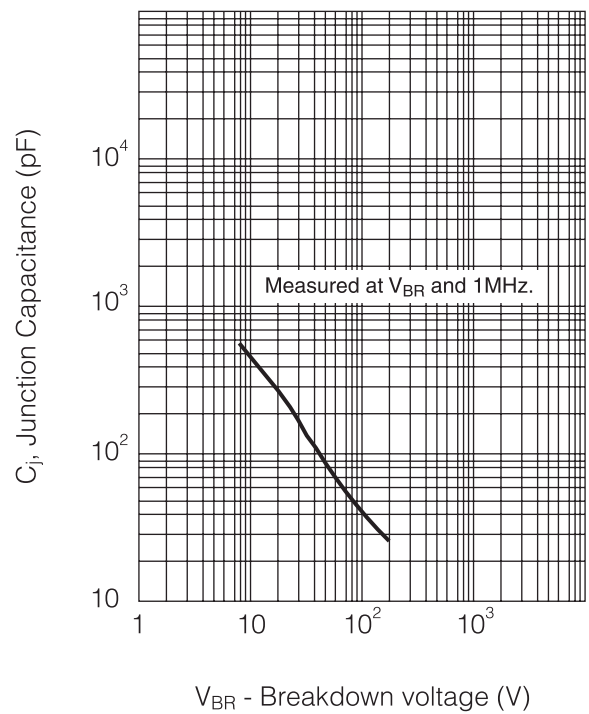
Pulse wave form 10/1000



PULSE RATING CURVE



TYPICAL JUNCTION CAPACITANCE



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Revision History

DATE	REVISION	DESCRIPTION OF CHANGES
10-Sep-2008	0	Original Data Sheet
8-Jul-2016	1	Format update
23-Nov-2017	2	Include Bidirectional Devices

Disclaimer

All product, product specifications and data are subject to change without notice to improve reliability, function or design or otherwise.

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