

Surface Mount Fast Switching Diode Array

COMCHIP 
www.comchiptech.comCDSV5-4448C2
CDSV6-4448A2 / S2

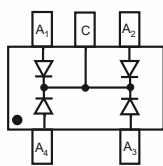
Current :500 mA Voltage:100 Volts

Features

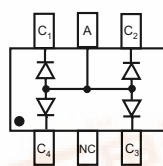
- Fast Switching Speed
- Ultra-Small Surface Mount Package
- For General Purpose Switching Applications
- High Conductance

Features

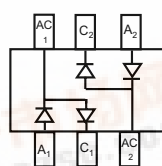
- Case: SOT-353 and SOT-363, Molded Plastic
- Case Material - UL Flammability Rating Classification 94V-0
- Terminals: Solderable per MIL-STD-202, Method 208
- Weight: 0.006 grams (approx.)



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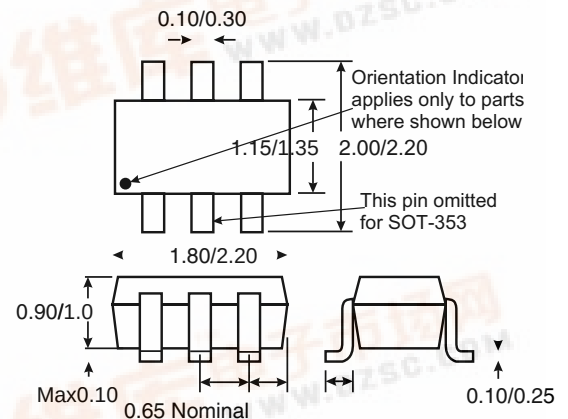
CDSV6-4448A2



CDSV6-4448S2



SOT-363/SOT-353



All Dimensions in mm

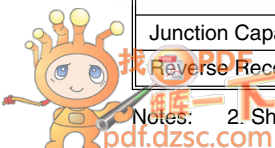
Maximum Ratings @ $T_A = 25^\circ\text{C}$ unless otherwise specified

Characteristic	Symbol	Value	Unit
Non-Repetitive Peak Reverse Voltage	V_{RM}	100	V
Peak Repetitive Reverse Voltage Working Peak Reverse Voltage DC Blocking Voltage	V_{RRM} V_{RWM} V_R	80	V
RMS Reverse Voltage	$V_{R(RMS)}$	57	V
Forward Continuous Current	I_{FM}	500	mA
Average Rectified Output Current	I_O	250	mA
Non-Repetitive Peak Forward Surge Current @ $t = 1.0\mu\text{s}$ @ $t = 1.0\text{s}$	I_{FSM}	4.0 2.0	A
Power Dissipation	P_d	200	mW
Thermal Resistance Junction to Ambient Air	$R_{\theta JA}$	625	$^\circ\text{C/W}$
Operating and Storage Temperature Range	T_J, T_{STG}	-65 to +150	$^\circ\text{C}$

Electrical Characteristics @ $T_A = 25^\circ\text{C}$ unless otherwise specified

Characteristic	Symbol	Min	Max	Unit	Test Condition
Reverse Breakdown Voltage (Note 2)	$V_{BR(R)}$	80	—	V	$I_R = 100\mu\text{A}$
Maximum Forward Voltage (Note 2)	V_{FM}	0.62 — — —	0.72 0.855 1.0 1.25	V	$I_F = 5.0\text{mA}$ $I_F = 10\text{mA}$ $I_F = 100\text{mA}$ $I_F = 150\text{mA}$
Maximum Peak Reverse Current (Note 2)	I_{RM}	—	100 50 30 25	nA μA μA nA	$V_R = 70\text{V}$ $V_R = 75\text{V}, T_J = 150^\circ\text{C}$ $V_R = 25\text{V}, T_J = 150^\circ\text{C}$ $V_R = 20\text{V}$
Junction Capacitance	C_j	—	3.5	pF	$V_R = 6, f = 1.0\text{MHz}$
Reverse Recovery Time	t_{rr}	—	4.0	ns	$V_R = 6\text{V}, I_F = 5\text{mA}$

Notes: 2. Short duration pulse test used to minimize self-heating effect.



Rating and Characteristic Curves

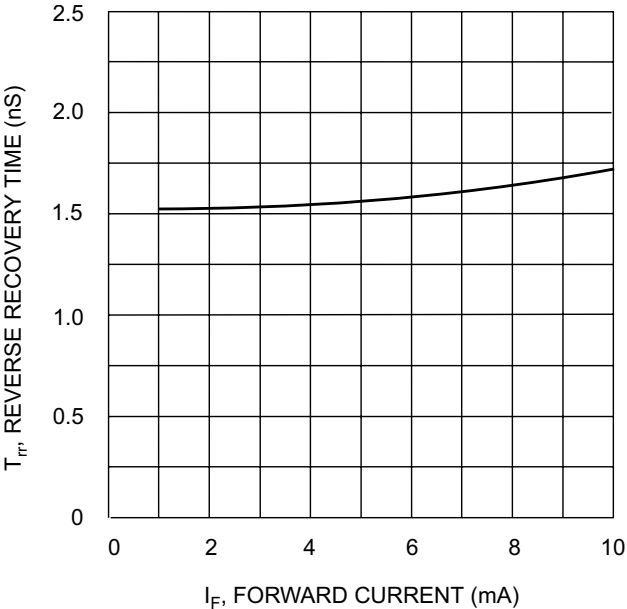


Fig. 1. Reverse Recovery Time vs. Forward Current

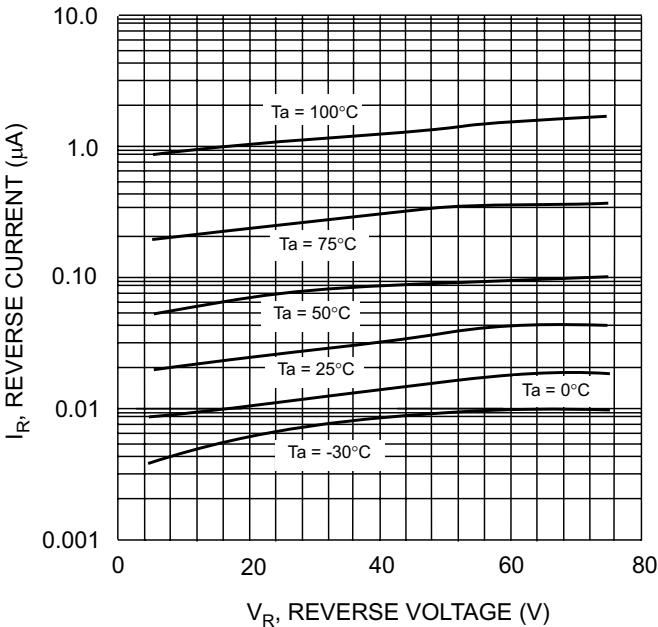


Fig. 2. Reverse Current vs Reverse Voltage

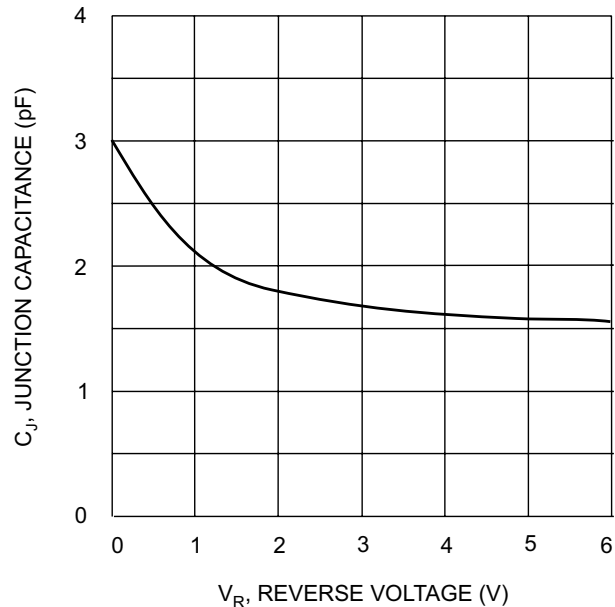


Fig. 3. Typical Junction Capacitance vs. Reverse Voltage

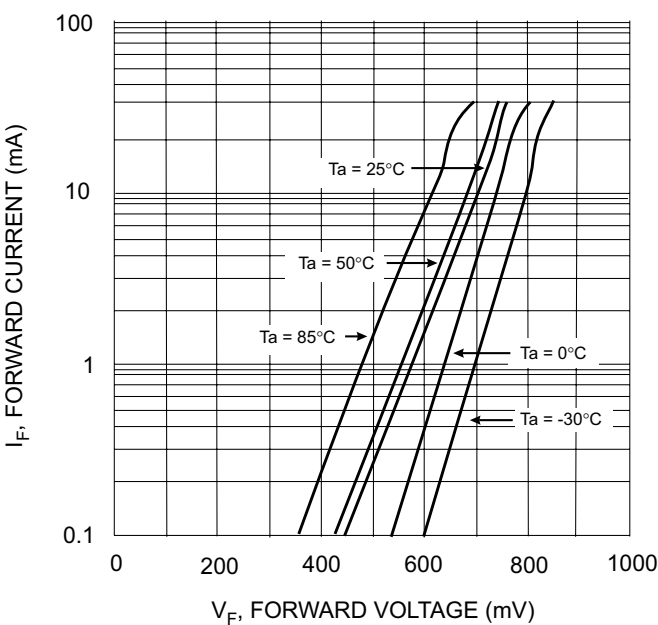


Fig. 4. Forward Current vs. Forward Voltage