

CDSV5-4448C2 CDSV6-4448A2 / S2

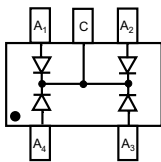
Current :500 mA Voltage:100 Volts

Features

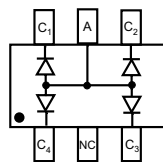
- Fast Switching Speed
- Ultra-Small Surface Mount Package
- For General Purpose Switching Applications
- High Conductance

Features

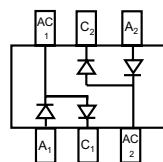
- Case: SOT-353 and SOT-363, Molded Plastic
- Case Material - UL Flammability Rating Classification 94V-0
- Terminals: Solderable per MIL-STD-202, Method 208
- Weight: 0.006 grams (approx.)



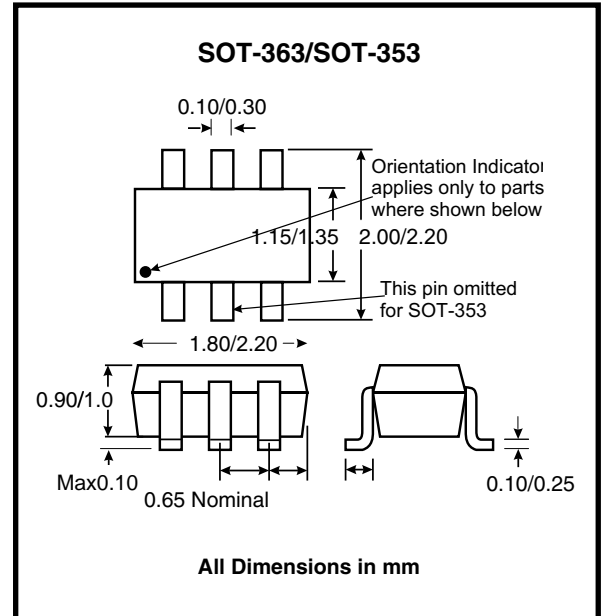
CDSV5-4448C2



CDSV6-4448A2



CDSV6-4448S2



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

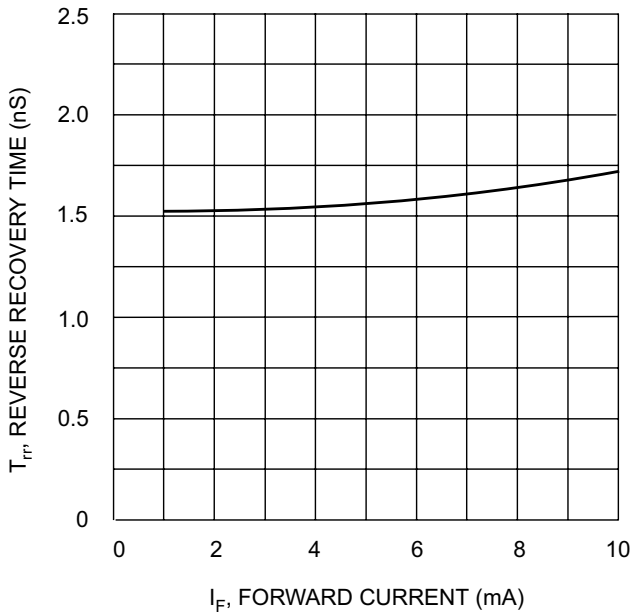
Characteristic	Symbol	Value	Unit
Non-Repetitive Peak Reverse Voltage	V_{RM}	100	V
Peak Repetitive Reverse Voltage Working Peak Reverse Voltage DC Blocking Voltage	V_{RRM} V_{RWM} V_R	80	V
RMS Reverse Voltage	$V_{R(RMS)}$	57	V
Forward Continuous Current	I_{FM}	500	mA
Average Rectified Output Current	I_O	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

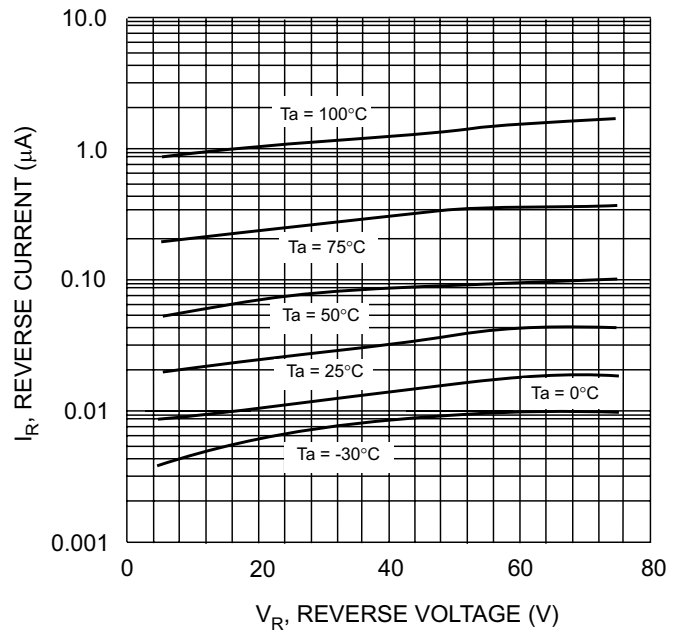
Characteristic	Symbol	Min	Max	Unit	Test Condition
Reverse Breakdown Voltage (Note 2)	$V_{BR(R)}$	80	—	V	$I_R = 100\mu\text{A}$
Maximum Forward Voltage (Note 2)	V_{FM}	0.62	0.72 0.855 1.0 1.25	V	$I_F = 5.0\text{mA}$ $I_F = 10\text{mA}$ $I_F = 100\text{mA}$ $I_F = 150\text{mA}$
Maximum Peak Reverse Current (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.

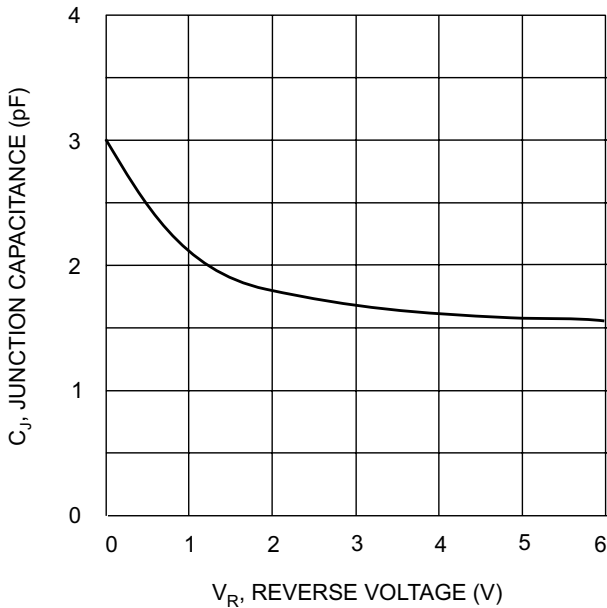
Rating and Characteristic Curves



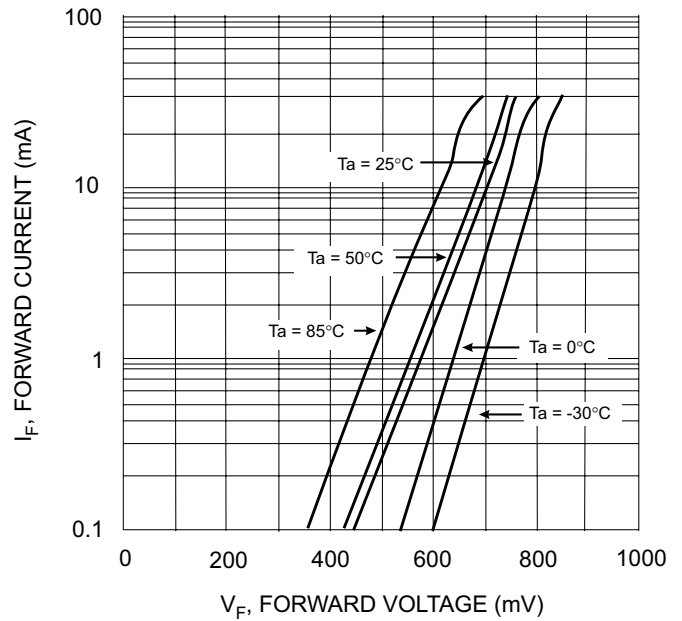
I_F , FORWARD CURRENT (mA)
Fig. 1. Reverse Recovery Time vs. Forward Current



V_R , REVERSE VOLTAGE (V)
Fig. 2 Reverse Current vs Reverse Voltage



V_R , REVERSE VOLTAGE (V)
Fig. 3. Typical Junction Capacitance vs. Reverse Voltage



V_F , FORWARD VOLTAGE (mV)
Fig. 4 Forward Current vs. Forward Voltage