Surface Mount Fast Switching Diode Array

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CDSV5-4448C2
CDSV6-4448A2 / S2


Current :500 mA Voltage:100 Volts

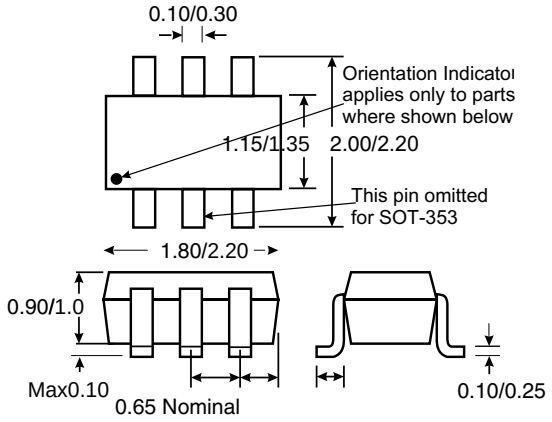
Features

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

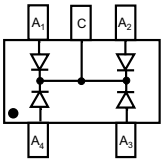
Features

- 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.)

SOT-363/SOT-353



All Dimensions in mm



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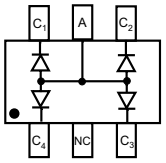

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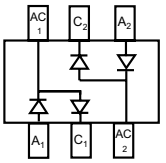

CDSV6-4448S2

Maximum Ratings @ T_A = 25°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 = 1.0μs @ t = 1.0s	I_{FSM}	4.0 2.0	A
Power Dissipation	P_d	200	mW
Thermal Resistance Junction to Ambient Air	$R_{\theta JA}$	625	°C/W
Operating and Storage Temperature Range	T_j , T_{STG}	-65 to +150	°C

Electrical Characteristics @ T_A = 25°C unless otherwise specified

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

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

Rating and Characteristic Curves

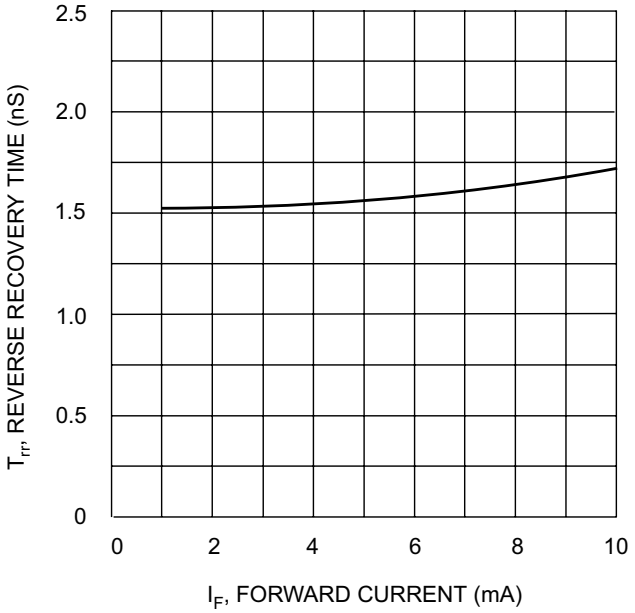

Fig. 1. Reverse Recovery Time vs. Forward Current

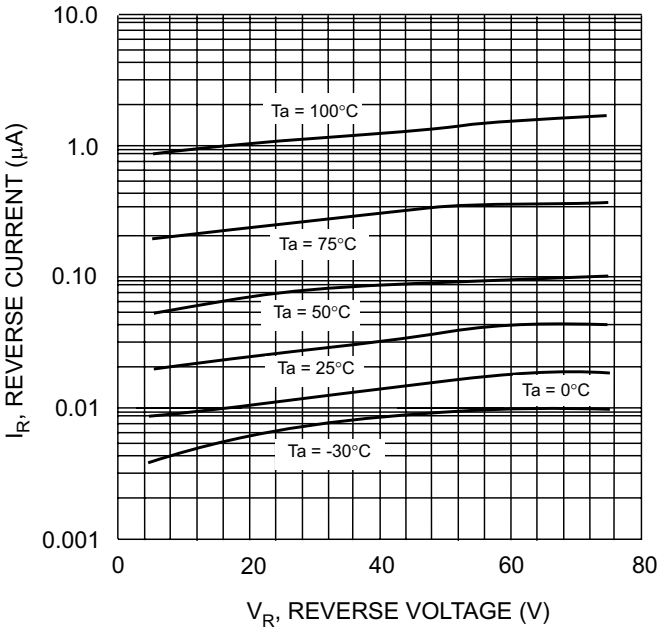

Fig. 2 Reverse Current vs Reverse Voltage

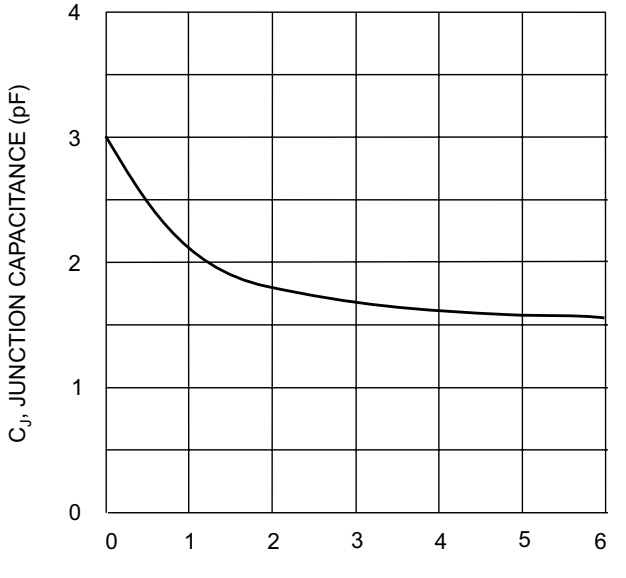

Fig. 3. Typical Junction Capacitance vs. Reverse Voltage

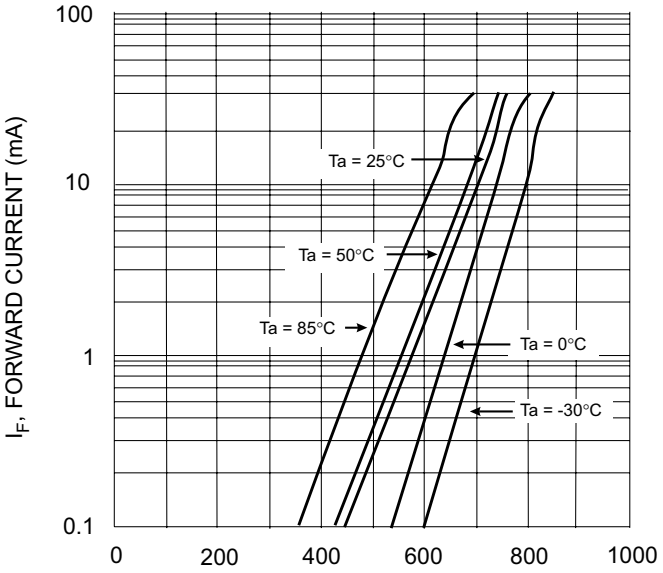

Fig. 4 Forward Current vs. Forward Voltage