ED1002CS Thru ED1006CS

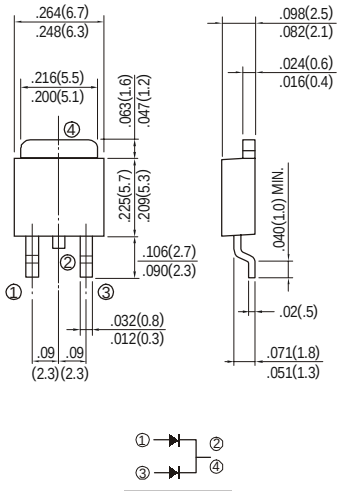
DPAK SURFACE MOUNT SUPER FAST RECOVERY RECTIFIER

VOLTAGE - 200 to 600 Volts CURRENT - 10.0 Amperes

FEATURES

- For surface mounted applications
- Low profile package
- Built-in strain relief
- Easy pick and place
- Superfast recovery times for high efficiency
- Plastic package has Underwriters Laboratory Flammability Classification 94V-O
- Glass passivated junction
- High temperature soldering: 260°C / 10 seconds at terminals

DPAK / TO-252



MECHANICAL DATA

Case: D PAK/TO-252 molded plastic

Terminals: Solder plated, solderable per MIL-STD-750,Method 2026

Polarity: Color band denotes cathode

Standard packaging: 16mm tape (EIA-481)

Weight: 0.015 ounce, 0.4 gram.

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25°C ambient temperature unless otherwise specified.
Resistive or inductive load.

	SYMBOLS	ED1002CS	ED1003CS	ED1004CS	ED1006CS	UNITS
Maximum Recurrent Peak Reverse Voltage	V_{RRM}	200	300	400	600	Volts
Maximum RMS Voltage	V_{RMS}	140	210	280	420	Volts
Maximum DC Blocking Voltage	V_{DC}	200	300	400	600	Volts
Maximum Average Forward Rectified Current at T_C=75°C	$I_{(AV)}$	10	10	10	10	Amps
Peak Forward Surge Current 8.3ms single half sine-wave superimposed on rated load(JEDEC method)	I_{FSM}	75	75	75	75	Amps
Maximum Instantaneous Forward Voltage at 5.0A (Note 1)	V_F	0.95	1.30	1.30	1.70	Volts
Maximum DC Reverse Current (Note 1) T_A=25°C at Rated DC Blocking Voltage T_A=100°C	I_R	5.0 50	5.0 50	5.0 50	5.0 50	µA
Maximum Thermal Resistance (Note 2)	RθJC RθJA	11 80	11 80	11 80	11 80	°C / W
Maximum Reverse Recovery	T_{RR}	35	35	35	35	ns
Storage Temperature Range	T_{STG}	-55 to +150				°C

NOTES:

1. Pulse Test with PW=300µsec, 2% Duty Cycle.
2. Mounted on P.C. Board with 14mm² (.013mm thick) copper pad areas.

RATING AND CHARACTERISTIC CURVES

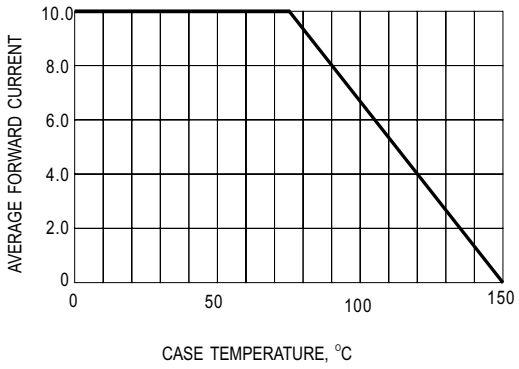


Fig.1- FORWARD CURRENT DERATING CURVE

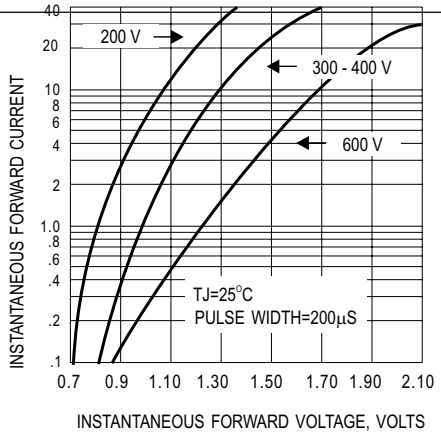


Fig.2- TYPICAL INSTANTANEOUS FORWARD CHARACTERISTIC

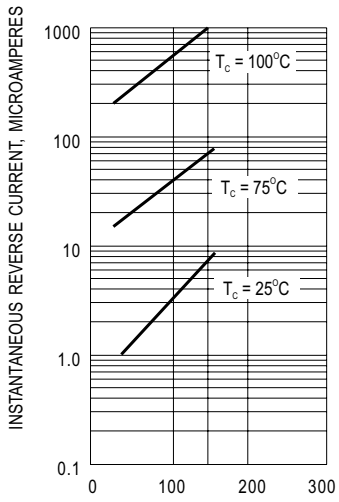


Fig.3- TYPICAL REVERSE CHARACTERISTIC

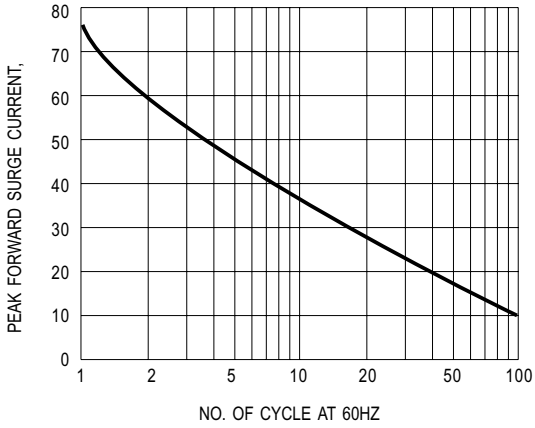


Fig.4- MAXIMUM NON-REPETITIVE SURGE CURRENT

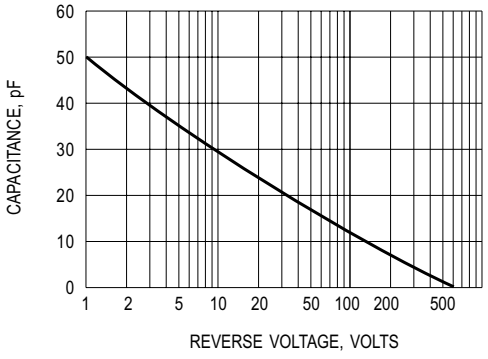


Fig.5- TYPICAL JUNCTION CAPACITANCE