SD820CS thru SD8100CS

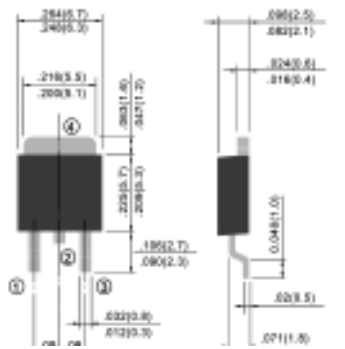
Surface mount schottky barrier rectifiers
Voltage Range 20 to 100 Volts Current 8.0 Amps

Technical Specification:

Features:

- For surface mounted applications
- Low power loss, High efficiency
- Low profile package
- Built-in strain relief
- Easy pick and place
- High surge capacity
- Plastic package has Underwriters Laboratory Flammability Classification 94V-O
- For use in low voltage high frequency inverters, free wheeling and polarity protection applications
- Both normal and Pb free product are available :
  Normal : 80~95% Sn, 5~20% Pb
  Pb free: 98.5% Sn above

TO-252 / DPAK



Mechanical Data:

- Case: DPAK / TO-252 molded plastic
- Terminals: Solder plated, solderable per MIL-STD-750 Method 2026
- Polarity: As marking
- Standard packaging: 16mm tape (EIA-481)
- Weight: 0.015 ounces, 0.4 grams.

■Maximum Ratings and Electrical Characteristics

- Rating at 25°C ambient temperature unless otherwise specified.
- Resistive or inductive load, 60Hz.
- For capacitive load, derate current by 20%.

Parameter	Symbols	SD820CS	SD830CS	SD840CS	SD850CS	SD860CS	SD880CS	SD8100CS	Units
Maximum repetitive peak reverse voltage	V_{RRM}	20	30	40	50	60	80	100	Volts
Maximum RMS voltage	V_{RMS}	14	21	28	35	42	56	70	Volts
Maximum DC blocking voltage	V_{DC}	20	30	40	50	60	80	100	Volts
Maximum average forward rectified current .375" (9.5mm) lead lengths @T_C=85°C	$I_{(AV)}$	8.0							Amp
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC method)	I_{FSM}	85.0							Amps
Maximum forward voltage at 4.0A DC (Note 1)	V_F	0.55			0.75		0.85		Volts
Maximum DC reverse current @T_C=25°C at rated DC blocking voltage @T_C=100°C	I_R	0.2 20.0							mA
Typical thermal resistance	$R_{\theta JC}$ $R_{\theta JA}$	3.0 80							°C/W
Operating junction temperature range	T_J	-55 to +125							°C
Storage temperature range	T_{STG}	-55 to +150							°C

Notes: 1. Pulse Test with PW=300 usec, 2% Duty Cycle.

■Ratings and Characteristic Curves

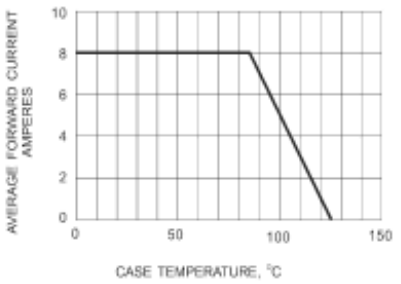


Fig.1- FORWARD CURRENT DERATING CURVE

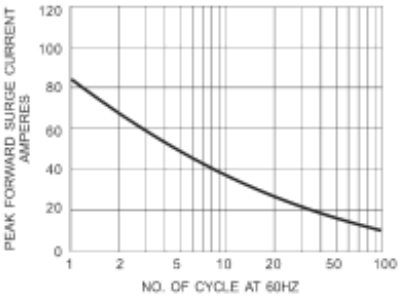


Fig.2- MAXIMUM NON - REPETITIVE SURGE CURRENT

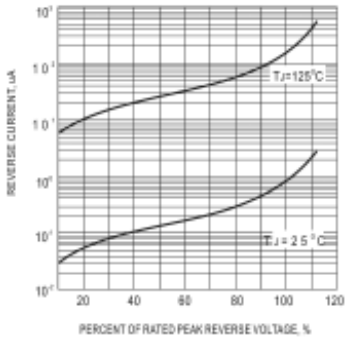


Fig.3- TYPICAL REVERSE CHARACTERISTIC

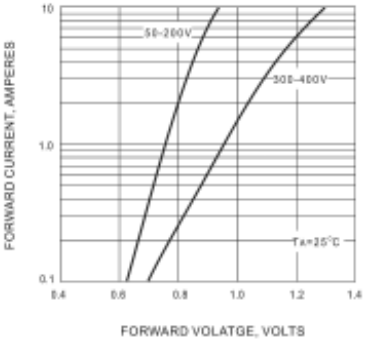


Fig.4- TYPICAL INSTANTANEOUS FORWARD CHARACTERISTIC

Web site: http://www.semiteltech.com

For additional information, please contact your local Sales Representative.