

Technical Specification:

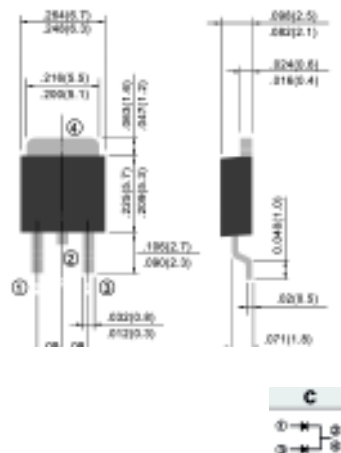
Features:

- ◆ Plastic package has Underwriters Laboratory Flammability Classification 94V-O
- ◆ For surface mounted applications
- ◆ Low profile package
- ◆ Built-in strain relief
- ◆ Low power loss, High efficiency
- ◆ High surge capacity
- ◆ For use in low voltage high frequency inverters, free wheeling and polarity protection applications
- ◆ High temperature soldering guaranteed: 260°C/10 seconds at terminals
- ◆ Both normal and Pb free product are available :
 Normal : 80~95% Sn, 5~20% Pb
 Pb free: 98.5% Sn above

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.

TO-252 / DPAK



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	SD620CS	SD630CS	SD640CS	SD650CS	SD660CS	SD680CS	SD6100CS	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 =75°C	I _{AV}	6.0							Amp
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC method)	I _{FSM}	75.0							Amps
Maximum forward voltage at 3.0A DC per leg	V _F	0.50			0.70		0.85		Volts
Maximum DC reverse current @T _j =25°C at rated DC blocking voltage @T _j =100°C	I _R				0.2 20.0				mA
Typical thermal resistance	R _{WC}	5.0							°C/W
Operating junction temperature range	T _J	-55 to +125							°C
Storage temperature range	T _{STG}	-55 to +150							°C

Notes: 1. Both bonding and chip structure are available.

■ Ratings and Characteristic Curves

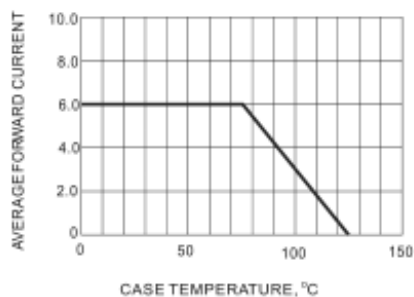


Fig. 1- FORWARD CURRENT DERATING CURVE

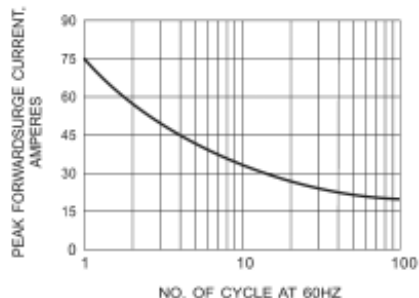


Fig. 2- MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

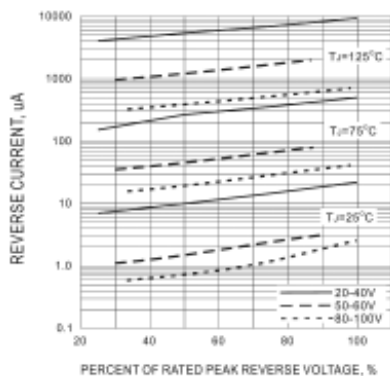


Fig. 3- TYPICAL REVERSE CHARACTERISTIC

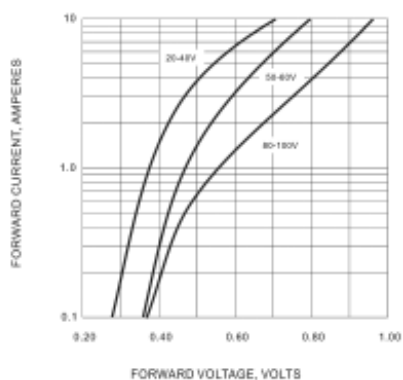


Fig. 4- TYPICAL INSTANTANEOUS FORWARD CHARACTERISTIC

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