

RoHS Compliant Product

A suffix of "-C" specifies halogen & lead-free

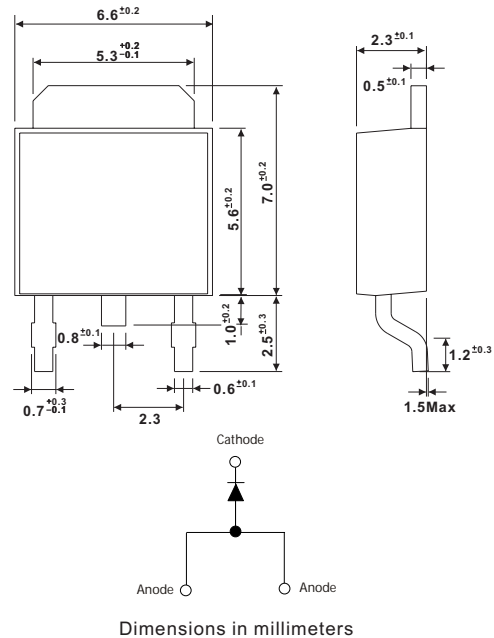
D-Pack

FEATURES

- . Low forward voltage drop
- . High current capability
- . High reliability
- . High surge current capability
- . Epitaxial construction

MECHANICAL DATA

- . Case: Molded plastic
- . Epoxy: UL 94V-0 rate flame retardant
- . Metallurgically bonded construction
- . Polarity: Color band denotes cathode end
- . Mounting position: Any
- . Weight: 0.70 grams



MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Rating 25°C ambient temperature unless otherwise specified.
Single phase half wave, 60Hz, resistive or inductive load.
For capacitive load, derate current by 20%.

TYPE NUMBER	SM540DS	SM560DS	SM5100DS	UNITS
Maximum Recurrent Peak Reverse Voltage	40	60	100	V
Working Peak Reverse Voltage	40	60	100	V
Maximum DC Blocking Voltage	40	60	100	V
Maximum Average Forward Rectified Current, See Fig. 1	5.0 A			
Peak Forward Surge Current, 8.3 ms single half Sine-wave superimposed on rated load (JEDEC method)	125 A			
Maximum Instantaneous Forward Voltage at 5.0A	0.55	0.65	0.83	V
Maximum DC Reverse Current Ta=25 °C	0.2	0.1	0.05	mA
At Rated DC Blocking Voltage Ta=100 °C	30	30	7.5	
Typical Junction Capacitance (Note 1)	250			pF
Typical Thermal Resistance RθJC (Note 2)	10			°C / W
Operating Temperature Range T _J	-50 ~ +150			
Storage Temperature Range T _{STG}	-65 ~ +175			

NOTES:

1. Measured at 1MHz and applied reverse voltage of 4.0V D.C.
2. Thermal Resistance Junction to Ambient Vertical PC Board Mounting 0.5"(12.7mm) Lead Length.

RATING AND CHARACTERISTIC CURVES (SM540DS THRU SM5100DS)

FIG.1-TYPICAL FORWARD CURRENT DERATING CURVE

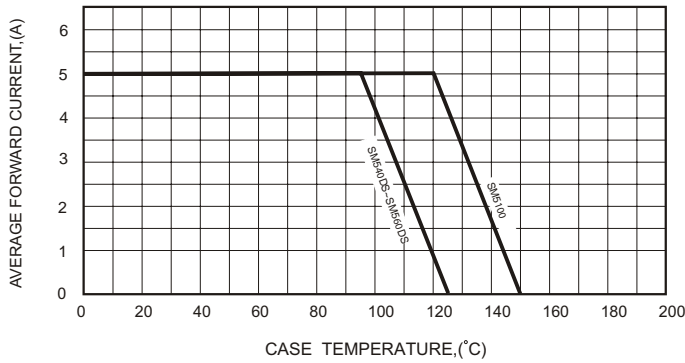


FIG.2-TYPICAL FORWARD CHARACTERISTICS

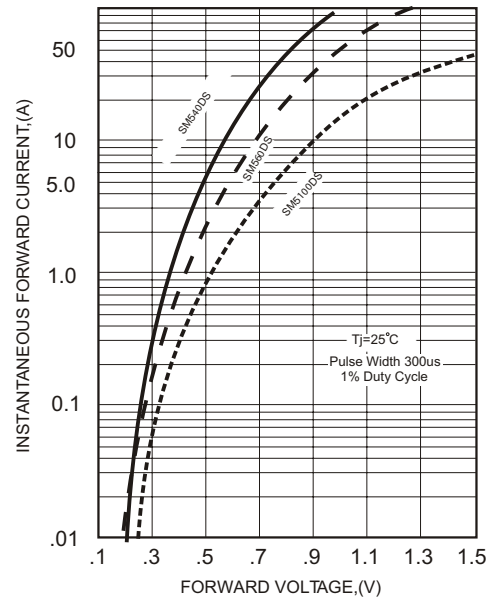


FIG.3-MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

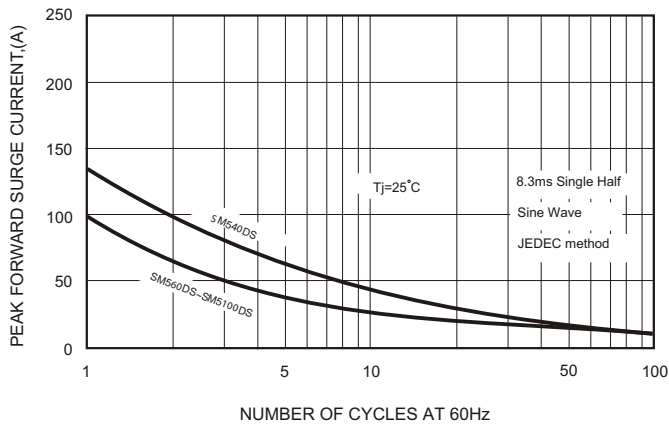


FIG.5 - TYPICAL REVERSE CHARACTERISTICS

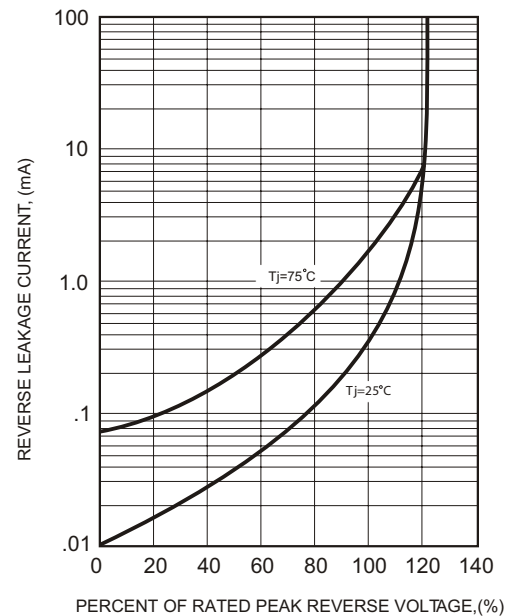


FIG.4-TYPICAL JUNCTION CAPACITANCE

