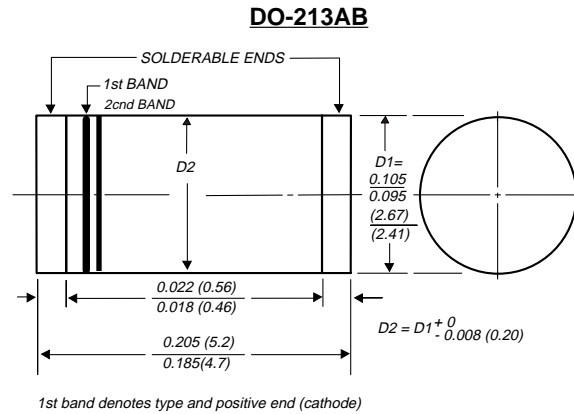


Features

- Low forward voltage drop
- Low leakage current
- High reliability

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: 0.015 grams



Maximum Ratings and Electrical Characteristics @ $T_A = 25^\circ\text{C}$ unless otherwise specified

Single phase, half wave, 60Hz, resistive or inductive load.
For capacitive load, derate current by 20%.

TYPE NUMBER	SM120	SM130	SM140	SM150	SM160	UNITS
Maximum Recurrent Peak Reverse Voltage	20	30	40	50	60	V
Maximum RMS Voltage	14	21	28	35	42	V
Maximum DC Blocking Voltage	20	30	40	50	60	V
Maximum Average Forward Rectified Current See Fig. 1	1.0					A
Peak Forward Surge Current, 8.3 ms single half sine-wave superimposed on rated load (JEDEC method)	40					A
Maximum Instantaneous Forward Voltage at 1.0A	0.55		0.70			V
Maximum DC Reverse Current $T_a=25^\circ\text{C}$	1.0					mA
at Rated DC Blocking Voltage $T_a=100^\circ\text{C}$	10					mA
Typical Junction Capacitance (Note 1)	110					pF
Typical Thermal Resistance R _{JA} (Note 2)	50					$^\circ\text{C}/\text{W}$
Operating Temperature Range T_J	-65 — +125			-65 — +150		$^\circ\text{C}$
Storage Temperature Range T_{STG}	-65 — +150					$^\circ\text{C}$

NOTES:

1. Measured at 1MHz and applied reverse voltage of 4.0V D.C.
2. Thermal Resistance Junction to Ambient.



FIG.1-TYPICAL FORWARD CURRENT DERATING CURVE

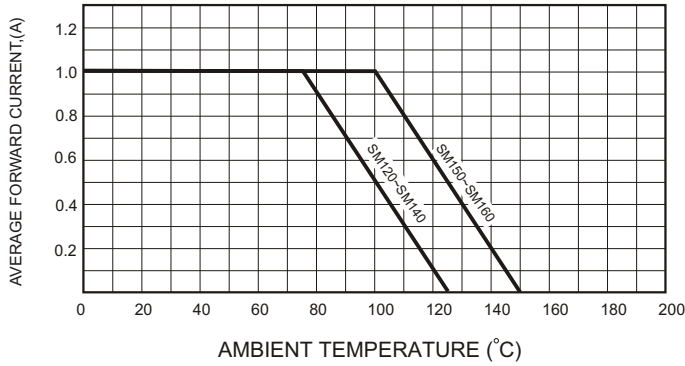


FIG.2-TYPICAL FORWARD CHARACTERISTICS

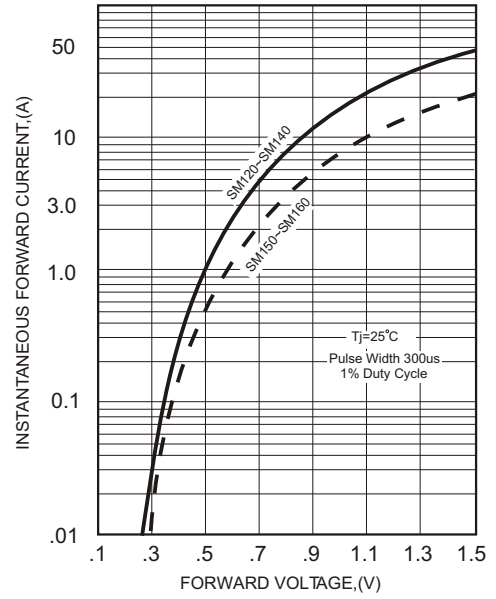


FIG.3-MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

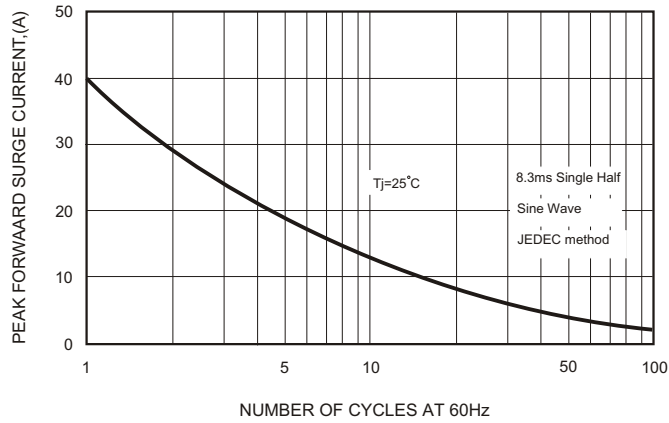


FIG.5 - TYPICAL REVERSE CHARACTERISTICS

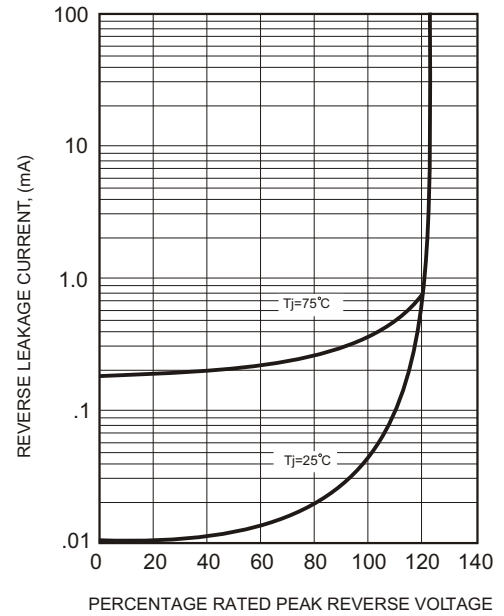


FIG.4-TYPICAL JUNCTION CAPACITANCE

