



10SQ030 THRU 10SQ100

SCHOTTKY BARRIER RECTIFIERS

REVERSE VOLTAGE -30 to 100Volts
FORWARD CURRENT-10.0 Amperes

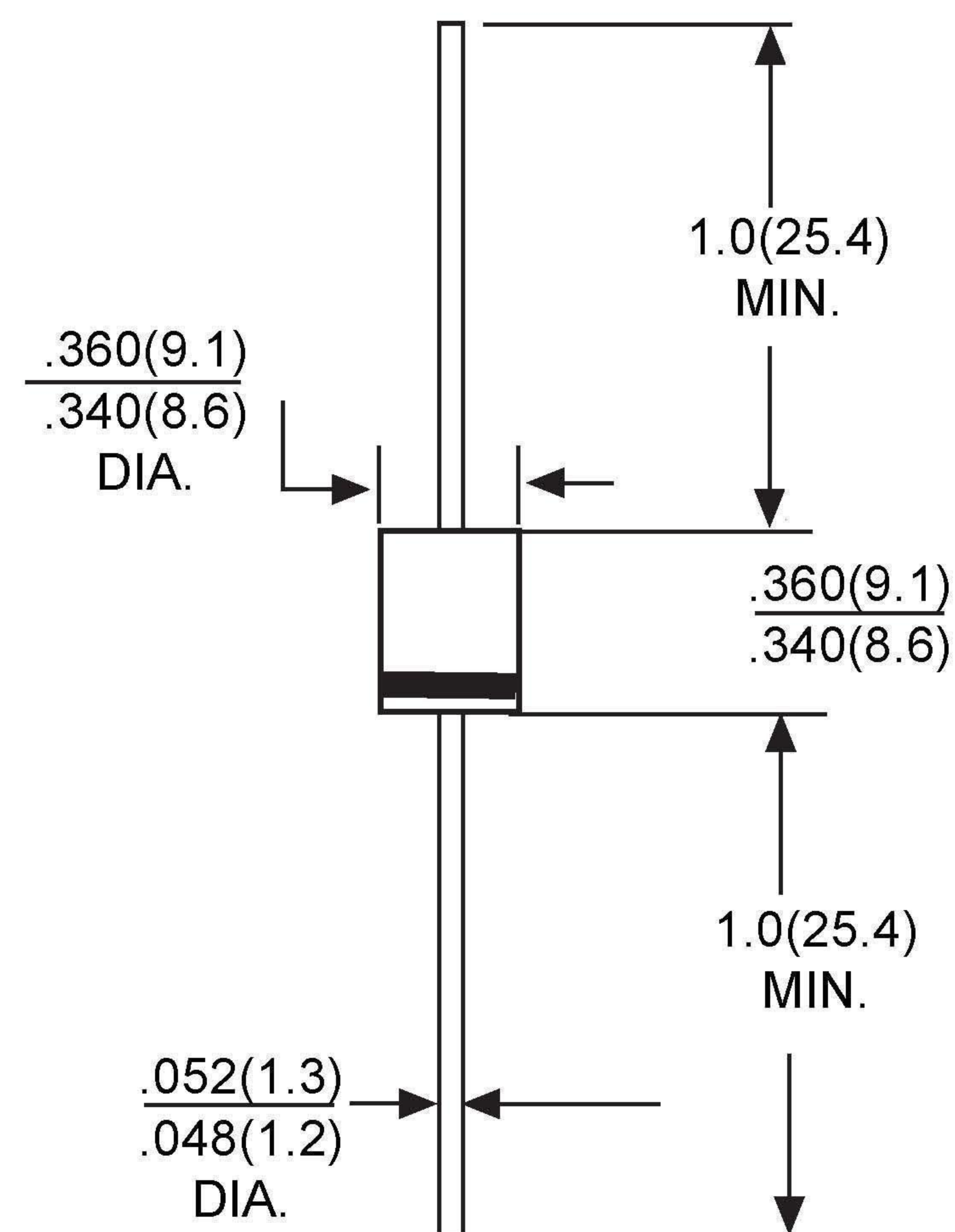
Features

- *Metal silicon rectifier, majority carrier conduction
- *Guard ring for transient protection
- *Low power loss, high efficiency
- *High current capability, low VF
- *High surge capacity
- *Plastic package has UL flammability classification 94V-0
- *For use low voltage, high frequency inverters, free wheeling, and polarity protection applications

Mechanical Data

- *Case: JEDEC R-6 Molded plastic
- *Polarity: Color band denotes cathode
- *Weight: 0.07 ounces 2.1 grams
- *Mounting position: Any

R-6



Dimensions in inches and (millimeters)

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Rating at 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	SYMBOL	10SQ030	10SQ035	10SQ040	10SQ045	10SQ050	10SQ060	10SQ080	10SQ100	UNIT	
Maximum Repetitive Peak Reverse Voltage	V _{RRM}	30	35	40	45	50	60	80	100	V	
Maximum RMS Voltage	V _{RMS}	21	24.5	28	31.5	35	42	56	70	V	
Maximum DC Blocking Voltage	V _{DC}	30	35	40	45	50	60	80	100	V	
Maximum Average Forward Rectified Current @ T _A = 75°C	I _{F(AV)}	10								A	
Peak Forward Surge Current, 8.3 ms Single Half Sine-wave Super imposed on Rated Load (JEDEC method)	I _{FSM}	275								A	
Peak Forward Voltage at 10A DC (Note 1)	V _F	0.55			0.7		0.8			V	
Maximum DC Reverse Current @ T _j = 25°C at Rated DC Blocking Voltage @ T _j = 100°C	I _R	0.5				50					MA
Typical Junction Capacitance (Note 2)	C _J	450								pF	
Typical Thermal Resistance (Note 3)	R _{θJC}	3.0								°C/W	
Junction temperature- sperrschichttemperatue at reduced reverse voltage V _R ≤ 80% V _{RRM} bei reduzierter sperrspannung V _R ≤ 50% V _{RRM} in DC forward mode-bei Gleichstrom-Durchalss betrieb	T _J	-55 to +150 ≤ 175 ≤ 200								°C	
Storage Temperature Range	T _{STG}	-55 to +150									

NOTES: 1. 300us Pulse Width, 2% Duty Cycle.
2. Measured at 1.0 MHz and applied reverse voltage of 4.0VDC.
3. Thermal Resistance Junction to Case.

RATING AND CHARACTERISTIC CURVES 10SQ030 THRU 10SQ100



FIG.1- FORWARD CURRENT DERATING CURVE

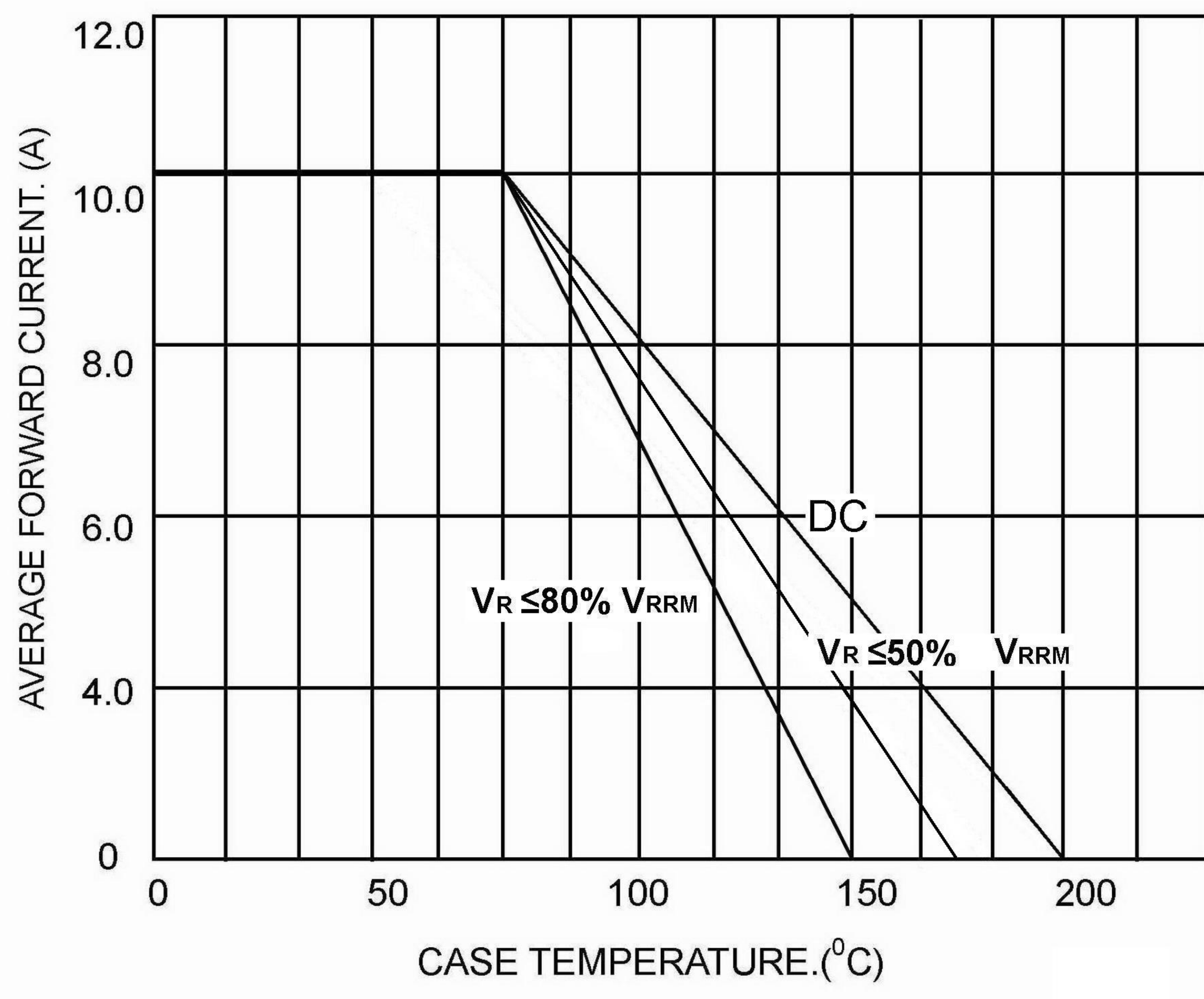


FIG.2- MAXIMUM NON-REPETITIVE SURGE CURRENT

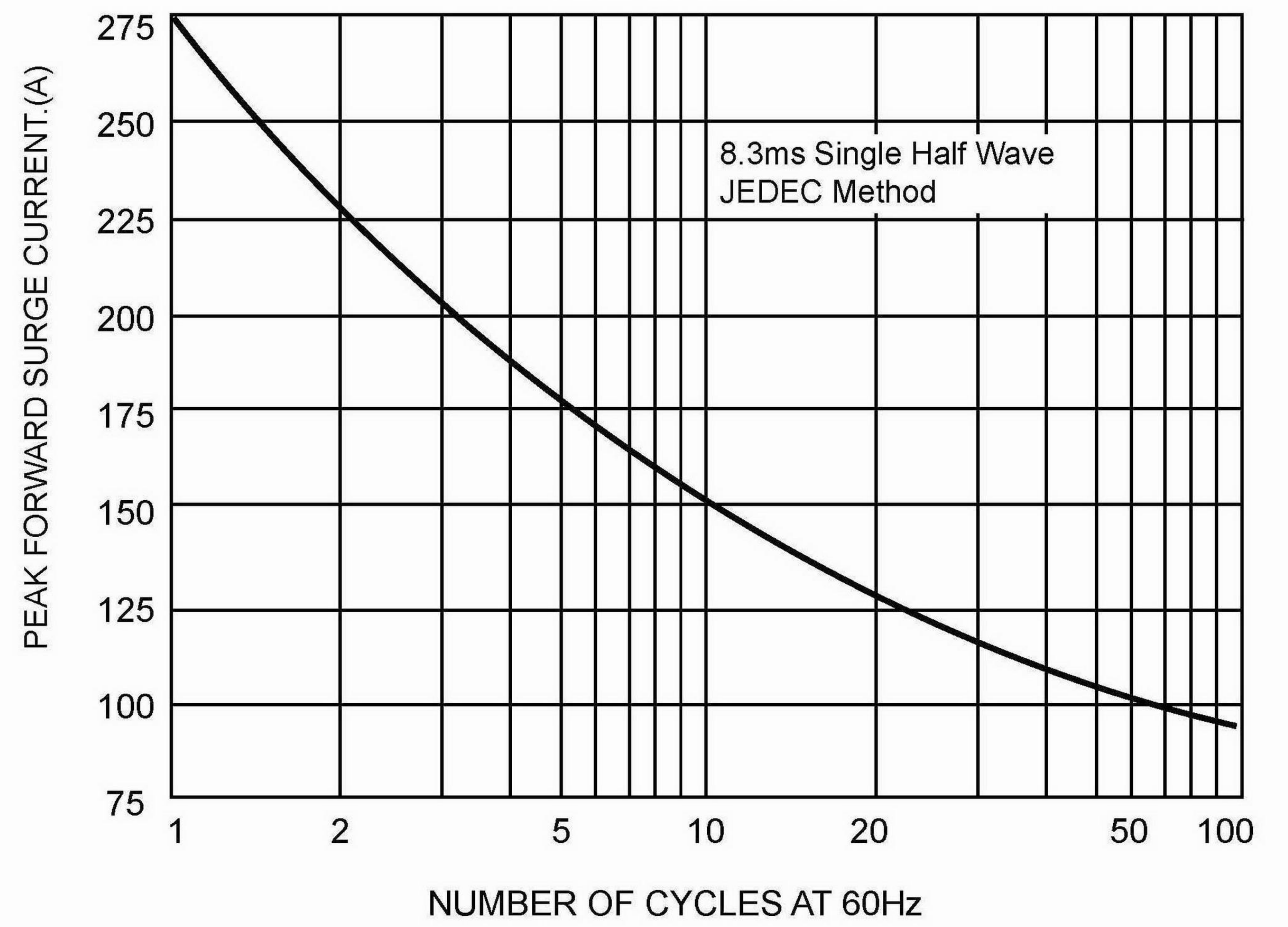


FIG.3-TYPICAL REVERSE CHARACTERISTIC

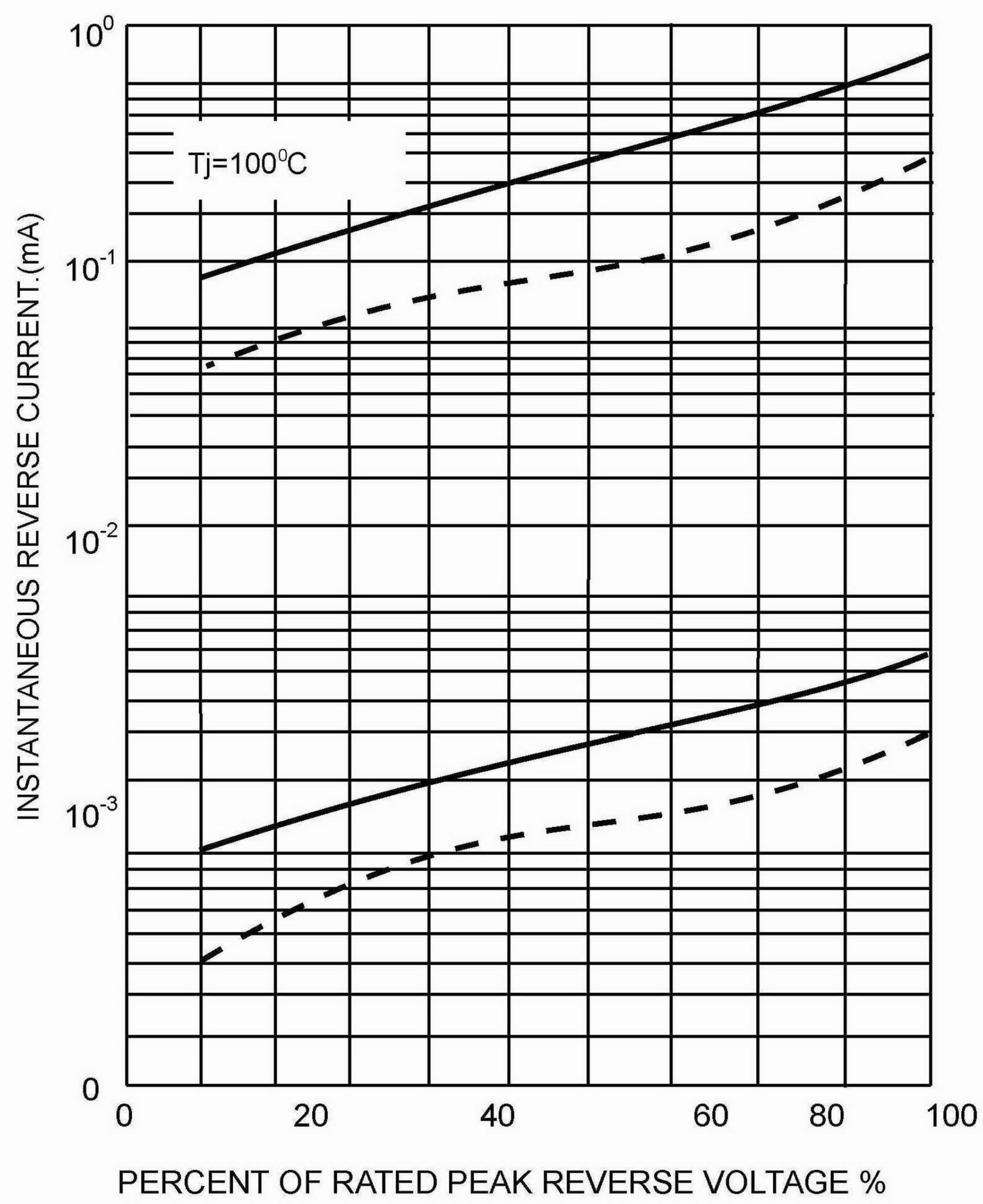


FIG.4-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTIC

