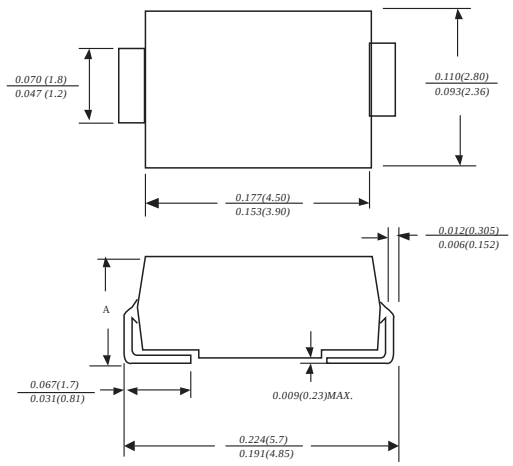
SM525

HIGH VOLTAGE RECTIFIER

FEATURES

- The plastic package carries Underwriters Laboratory Flammability Classification 94V-0
- Construction utilizes void-free molded plastic technique
- Low reverse leakage
- High forward surge current capability
- High temperature soldering guaranteed: 250℃/10 seconds,0.375”(9.5mm) lead length, 5 lbs. (2.3kg) tension

DO-214AC



MECHANICAL DATA

Case: JEDEC DO-214AC/SMA molded plastic body
Terminals: Plated axial leads, solderable per MIL-STD-750, Method 2026
Polarity: Color band denotes cathode end
Mounting Position: Any
Weight:0.003 ounce, 0.093 grams

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25℃ ambient temperature unless otherwise specified.
Single phase half-wave 60Hz,resistive or inductive load,for capacitive load current derate by 20%.

	SYMBOLS	SM525	UNITS
Maximum repetitive peak reverse voltage	V_{RRM}	2500	VOLTS
Maximum RMS voltage	V_{RMS}	1750	VOLTS
Maximum DC blocking voltage	V_{DC}	2500	VOLTS
Maximum average forward rectified current 0.375”(9.5mm) lead length (see fig.1)	$I_{(AV)}$	0.2	Amp
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC Method)	I_{FSM}	30.0	Amps
Maximum instantaneous forward voltage at 0.2 A	V_F	3.0	Volts
Maximum DC reverse current T_A=25℃ at rated DC blocking voltage T_A=100℃	I_R	5.0 50	uA
Typical junction capacitance (NOTE 1)	C_J	15.0	pF
Typical thermal resistance (NOTE 2)	R_{qJA}	50.0	°C/W
Operating junction and storage temperature range	T_J,T_{STG}	-65 to +175	°C

Note:1.Measured at 1MHz and applied reverse voltage of 4.0V D.C.
2.Thermal resistance from junction to ambient at 0.375” (9.5mm)lead length,P.C.B. mounted

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RATINGS AND CHARACTERISTIC CURVES

FIG. 1- FORWARD CURRENT DERATING CURVE

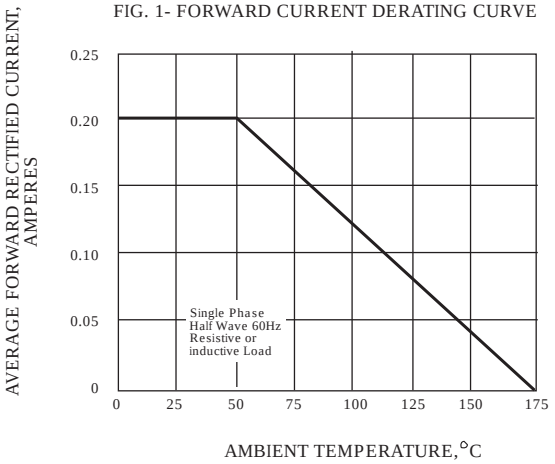

FIG. 2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

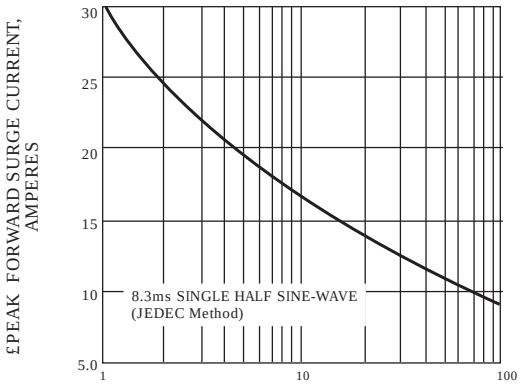

FIG. 3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

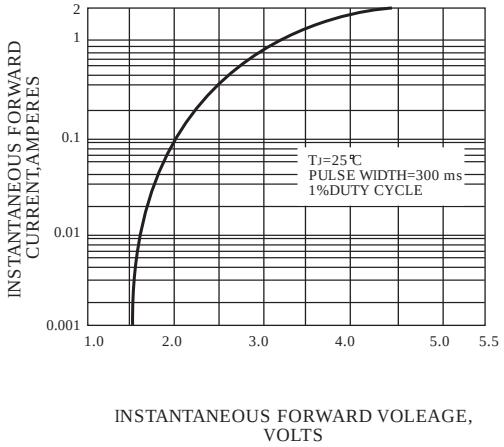

FIG. 4-TYPICAL REVERSE CHARACTERISTICS

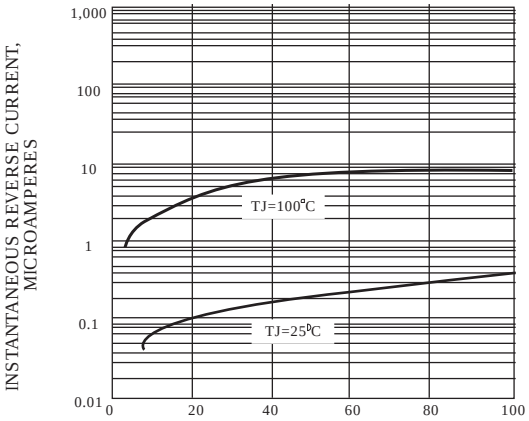

FIG. 5-TYPICAL JUNCTION CAPACITANCE

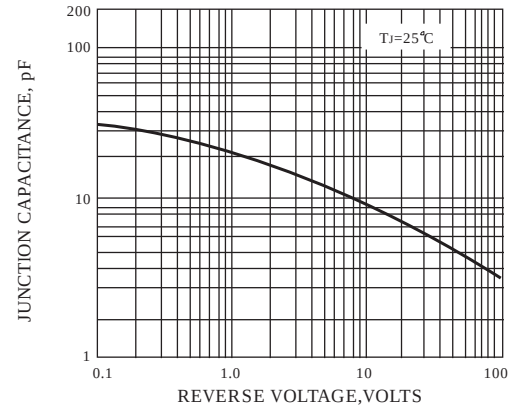

FIG. 6-TYPICAL TRANSIENT THERMAL IMPEDANCE