HD513 THRU HD528

Features

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

Mechanical Data

- Case: SMA
- Terminals: Solderable per MIL-STD-750, Method 2026
- Polarity: Color band denotes cathode end
- Weight: 0.012 ounce, 0.33 grams

Maximum Ratings and Electrical characteristics

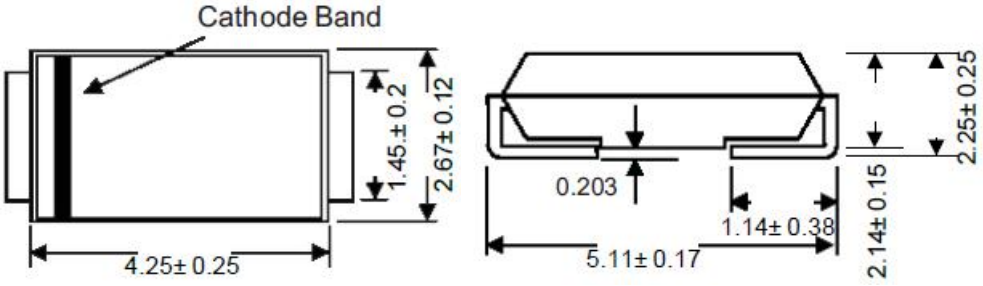
Ratings at 25 ambient temperature unless otherwise specified. Single phase half-wave 60 Hz, resistive or inductive load, for capacitive load current derate by 20 %.

Parameter	symbols	HD513	HD516	HD520	HD528	Units
Maximum Repetitive Peak Reverse Voltage	V_{RRM}	1600	1800	2000	2800	V
Maximum RMS voltage	V_{RMS}	1120	1260	1400	1960	V
Maximum DC Blocking Voltage	V_{DC}	1600	1800	2000	2800	V
Maximum average forward rectified current 0.375”(9.5mm) lead length at TA=75 C	$I_{F(AV)}$	1				A
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC Method)	I_{FSM}	30				A
Maximum Instantaneous Forward Voltage at 1 A	V_F	<2				V
Maximum DC Reverse Current = 25 °C at Rated DC Blocking Voltage =125 °C	I_R	5 50				μA
Typical Junction Capacitance[1]	Cj	15				pF
Typical Thermal Resistance[2]	$R_{\theta JA}$	50				℃/W
Operating and Storage Temperature Range	T_J,T_{STG}	-55 ~ +150				℃

1. Measured at 1 MHz and applied reverse voltage of 4 V D.C

Thermal resistance from junction to ambient at 0.375”(9.5mm)lead length,P.C.B. mounted

Package Outline



SMA

Characteristic Curves

FIG1. FORWARD CURRENT DERATING CURVE

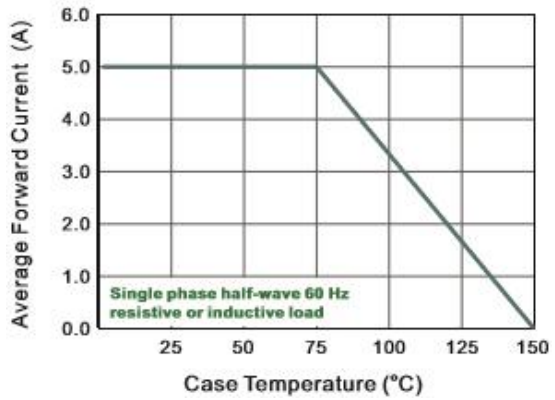


FIG. 2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

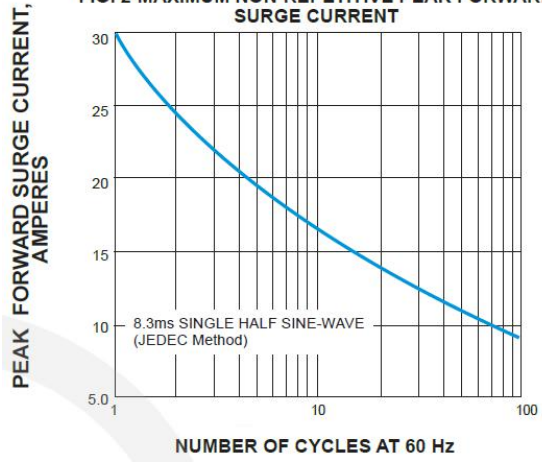


FIG. 3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

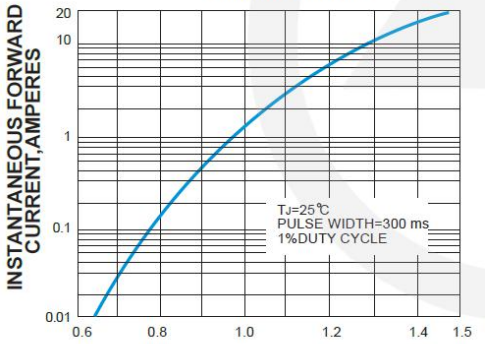


FIG. 4-TYPICAL REVERSE CHARACTERISTICS

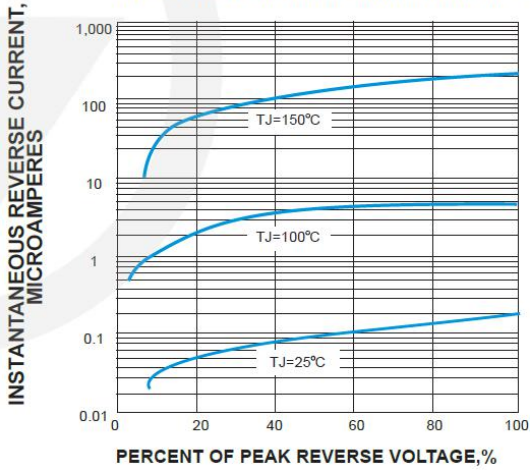


FIG. 5-TYPICAL JUNCTION CAPACITANCE

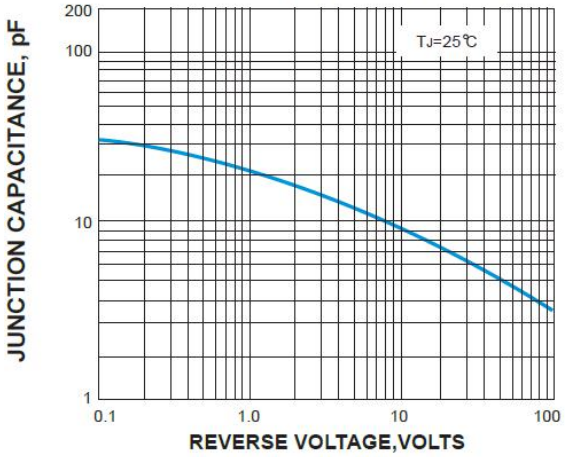


FIG. 6-TYPICAL TRANSIENT THERMAL IMPEDANCE