

**INTRODUCE:**

HVGT high voltage silicon rectifier diodes is made of high quality silicon wafer chip and high reliability epoxy resin sealing structure, and through professional testing equipment inspection qualified after to customers.

**FEATURES:**

1. Fast recovery.
2. High reliability design.
3. SMD encapsulation.
4. Conform to RoHS and SGS.
5. Epoxy resin molded in vacuum Have anticorrosion in the surface.

**APPLICATIONS:**

1. Air purification, negative ions.
2. Electrostatic voltage doubling circuit .
3. Other high voltage rectifier circuits.
4. Copier and X-ray.

**MECHANICAL DATA:**

1. Case: epoxy resin molding.
2. Terminal: Radial vane.
3. Net weight: 0.32 grams (approx).

**SHAPE DISPLAY:**

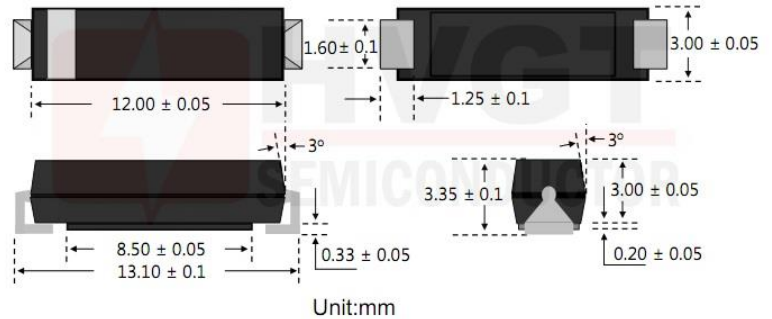


**SIZE: (Unit:mm)**

**HVGT NAME: SMK-J**

**SMK-J Series**

SMK-J Lead



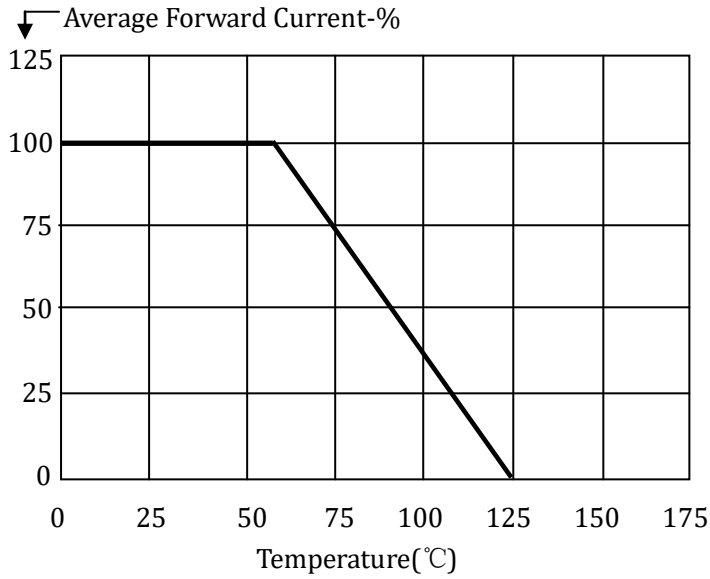
**MAXIMUM RATINGS AND CHARACTERISTICS: (Absolute Maximum Ratings)**

Items	Symbols	Condition	Data Value	Units
Repetitive Peak Reverse Voltage	$V_{RRM}$	$T_A=25^{\circ}C$	15.0	kV
Non-Repetitive Peak Reverse Voltage	$V_{RSM}$	$T_A=25^{\circ}C$	18.0	kV
Average Forward Current Maximum	$I_{FAVM}$	$T_A=55^{\circ}C$	10	mA
		$T_{OIL}=55^{\circ}C$	--	mA
Non-Repetitive Forward Surge Current	$I_{FSM}$	$T_A=25^{\circ}C$ ; 60Hz Half-Sine Wave; 8.3ms	2.0	A
Junction Temperature	$T_J$		125	$^{\circ}C$
Allowable Operation Case Temperature	$T_c$		-40~+125	$^{\circ}C$
Storage Temperature	$T_{STG}$		-40~+150	$^{\circ}C$

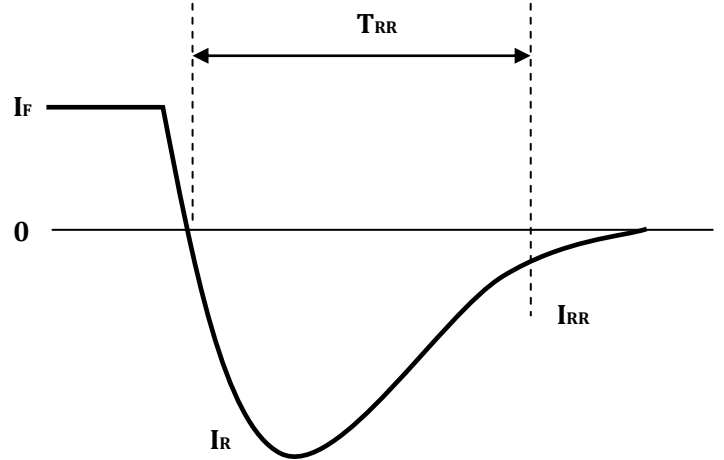
**ELECTRICAL CHARACTERISTICS:  $T_A=25^{\circ}C$  (Unless Otherwise Specified)**

Items	Symbols	Condition	Data value	Units
Maximum Forward Voltage Drop	$V_{FM}$	at $25^{\circ}C$ ; at $I_{FAVM}$	19.5	V
Maximum Reverse Current	$I_{R1}$	at $25^{\circ}C$ ; at $V_{RRM}$	1.0	$\mu A$
	$I_{R2}$	at $100^{\circ}C$ ; at $V_{RRM}$	20	$\mu A$
Maximum Reverse Recovery Time	$T_{RR}$	at $25^{\circ}C$ ; $I_F=0.5I_R$ ; $I_R=I_{FAVM}$ ; $I_{RR}=0.25I_R$	80	nS
Junction Capacitance	$C_J$	at $25^{\circ}C$ ; $V_R=0V$ ; $f=1MHz$	0.9	pF

**Forward Current Derating Curve**

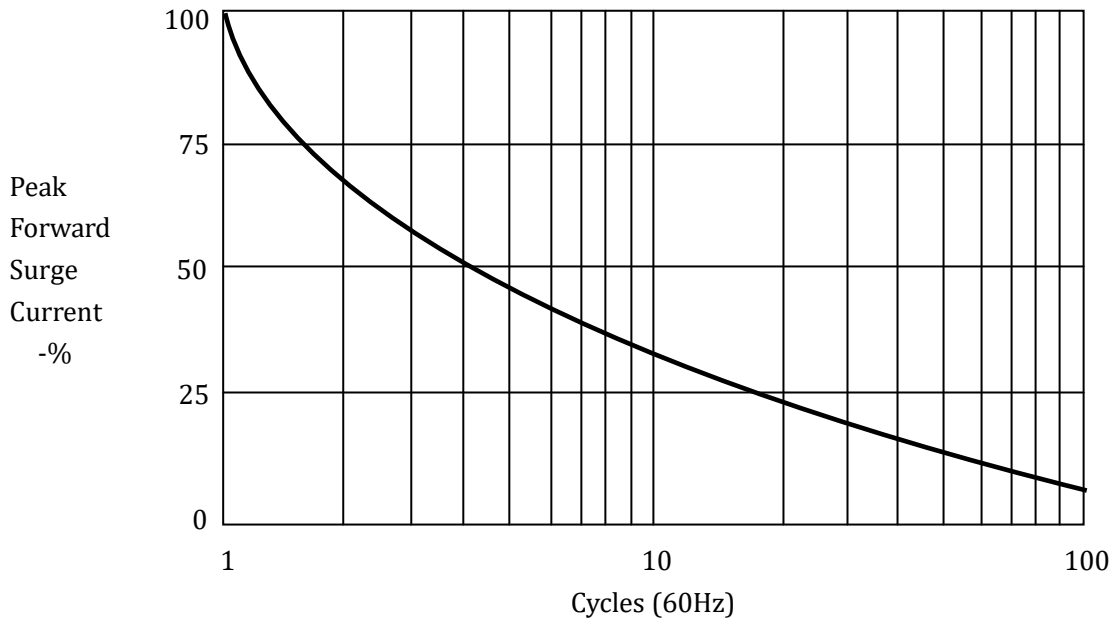


**Reverse Recovery Measurement Waveform**



Typical data capture points:  $I_F = 0.5I_R$ ,  $I_R, I_{RR} = 0.25I_R$   
 $I_R$  is typically the rated average forward current maximum ( $I_{FAVM}$ ) of the D.U.T

**Non-Repetitive Surge Current**



Marking	Type	Code	Cathode Mark
	2CL75MT	MT15 HVGT	

**NOTES:**

- Minimum packing quantity: 1,000PCS
- Specifications based on diode P.C.B. mounted on 5.0 mm x 5.0 mm copper solder pads.