



# CHENMKO ENTERPRISE CO.,LTD

## SURFACE MOUNT

### SCHOTTKY BARRIER RECTIFIER

VOLTAGE RANGE 60 - 100 Volts CURRENT 5.0 Amperes

**SPL560PT  
THRU  
SPL5100PT**

Lead free devices

PROVISIONAL SPEC.

#### APPLICATION

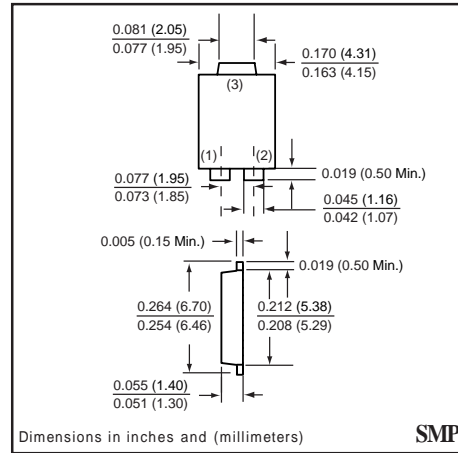
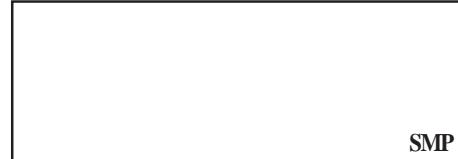
- \* DC to DC Converters
- \* Switch- Mode Power Supplies
- \* Notebook PC

#### FEATURE

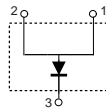
- \* Small Surface Mounting Type. (SMP)
- \* High speed ( $T_{RR}=8.0\text{ns}$  TYP.)
- \* Low Power Loss, High Efficiency .
- \* Low Forward Voltage Drop .
- \* Peak Forward Surge Current Is 100A.
- \* Schottky Diode Array .

#### WEIGHT

#### MARKING



#### CIRCUIT



#### MAXIMUM RATINGS ( At $T_A = 25^\circ\text{C}$ unless otherwise noted )

RATINGS	SYMBOL	SPL560PT	SPL580PT	SPL5100PT	UNITS
Maximum Recurrent Peak Reverse Voltage	$V_{RRM}$	60	80	100	Volts
Maximum RMS Voltage	$V_{RMS}$	42	56	70	Volts
Maximum DC Blocking Voltage	$V_{DC}$	60	80	100	Volts
Maximum Average Forward Rectified Current	$I_o$	5.0			Amps
Peak Forward Surge Current 8.3 ms single half sine-wave superimposed on rated load (JEDEC method)	$I_{FSM}$	100			Amps
Typical Junction Capacitance (Note 2)	$C_J$	250			pF
Typical Thermal Resistance (Note 3)	$R_{\theta JL}$	15			$^\circ\text{C} / \text{W}$
Operating Temperature Range	$T_J$	-65 to +125			$^\circ\text{C}$
Storage Temperature Range	$T_{STG}$	-65 to +150			$^\circ\text{C}$

#### ELECTRICAL CHARACTERISTICS ( At $T_A = 25^\circ\text{C}$ unless otherwise noted )

CHARACTERISTICS	SYMBOL	SPL560PT	SPL580PT	SPL5100PT	UNITS
Maximum Instantaneous Forward Voltage at 5.0 A DC (Note 1)	$V_F$	0.70	0.75	0.80	Volts
Maximum Average Reverse Current (Note 1) at Rated DC Blocking Voltage	@ $T_A = 25^\circ\text{C}$	0.5			mAmps
	@ $T_A = 100^\circ\text{C}$	20			mAmps

- NOTES : 1. Pulse test : 300 us pulse width, 1% duty cycle  
 2. Measured at 1.0 MHz and applied reverse voltage of 4.0 volts  
 3. P.C.B. mounted 0.31 x 0.31" ( 8 x 8mm) copper pad areas

2004-7

## RATING CHARACTERISTIC CURVES ( SPL560PT THRU SPL5100PT )

FIG. 1 - TYPICAL FORWARD CURRENT DERATING CURVE

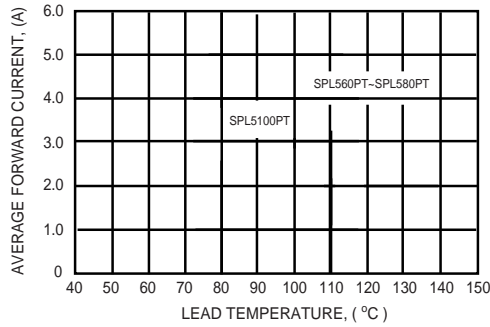


FIG. 2 - INSTANTANEOUS FORWARD CURRENT, (A)

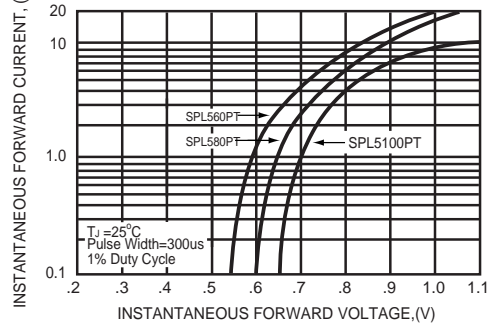


FIG. 3 - TYPICAL REVERSE CHARACTERISTICS

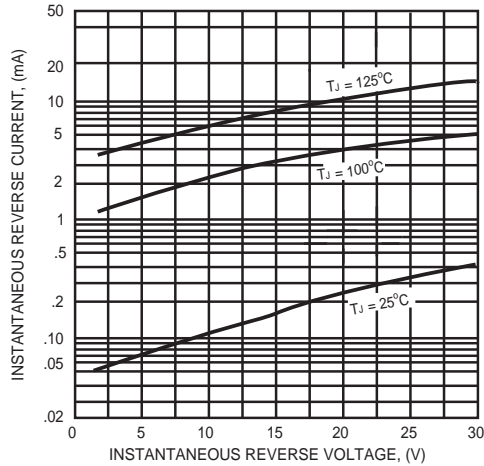


FIG. 4 - MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

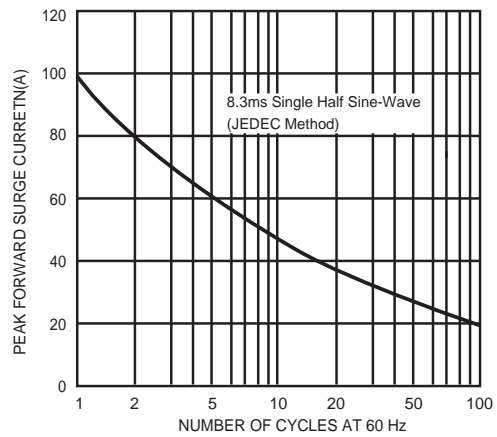


FIG. 5 - TYPICAL JUNCTION CAPACITANCE

