



CHENMKO ENTERPRISE CO.,LTD

MMBD914PT

SURFACE MOUNT SWITCHING DIODE

VOLTAGE 100 Volts CURRENT 0.2 Ampere

Lead free devices

APPLICATION

- * Ultra high speed switching

FEATURE

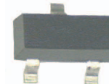
- * Small surface mounting type. (SOT-23)
- * High speed. ($T_{RR}=1.5nSec$ Typ.)
- * Suitable for high packing density.
- * Maximum total power dissipation is 225mW.
- * Peak forward current is 450mA.

CONSTRUCTION

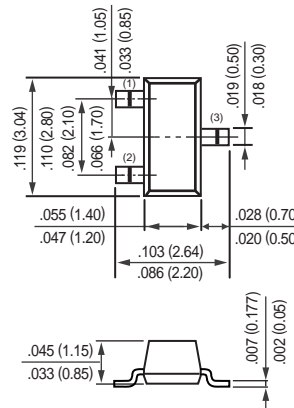
- * Silicon epitaxial planar

MARKING

- * 2D



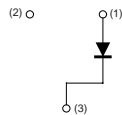
SOT-23



Dimensions in millimeters

SOT-23

CIRCUIT



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

RATINGS	SYMBOL	MMBD914PT	UNITS
Maximum Recurrent Peak Reverse Voltage	V_{RRM}	100	Volts
Maximum RMS Voltage	V_{RMS}	70	Volts
Maximum DC Blocking Voltage	V_{DC}	75	Volts
Maximum Average Forward Rectified Current	I_o	0.2	Amps
Peak Forward Surge Current at 1uSec.	I_{FSM}	2.0	Amps
Typical Junction Capacitance between Terminal (Note 1)	C_J	4.0	pF
Maximum Reverse Recovery Time (Note 2)	T_{RR}	4.0	nSec
Maximum Operating Temperature Range	T_J	+150	$^\circ C$
Storage Temperature Range	T_{STG}	-55 to +150	$^\circ C$

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

CHARACTERISTICS	SYMBOL	MMBD914PT	UNITS
Maximum Instantaneous Forward Voltage at $I_F = 10mA$	V_F	1.0	Volts
Maximum Average Reverse Current at $V_R = 75V$	I_R	2.5	uAmps

- NOTES : 1. Measured at 1.0 MHz and applied reverse voltage of 0 volts.
 2. Measured at applied forward current of 10mA and reverse voltage of 6.0 volts.
 3. ESD sensitive product handling required.

RATING CHARACTERISTIC CURVES (MMBD914PT)

FIG. 1 - TYPICAL FORWARD CURRENT DERATING CURRENT

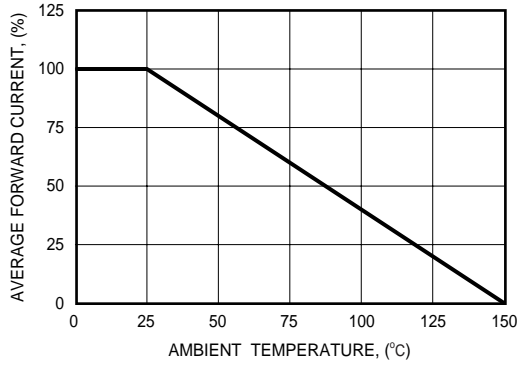


FIG. 2 - FORWARD CHARACTERISTICS

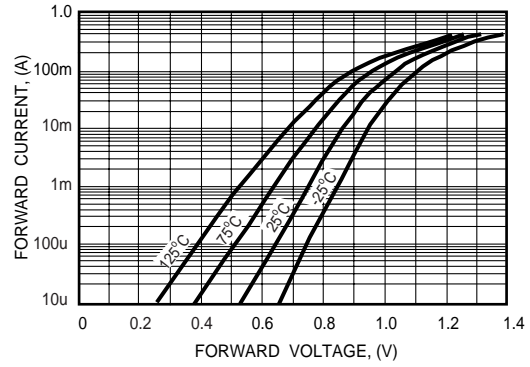


FIG. 3 - REVERSE CHARACTERISTICS

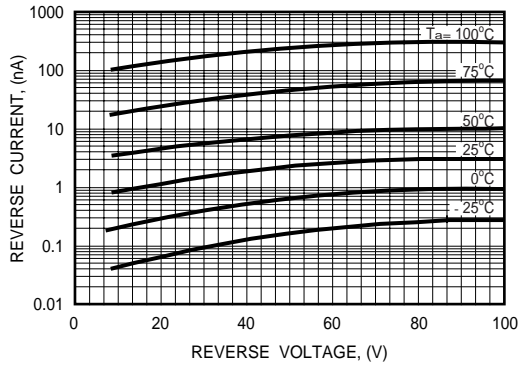


FIG. 4 - TYPICAL JUNCTION CAPACITANCE

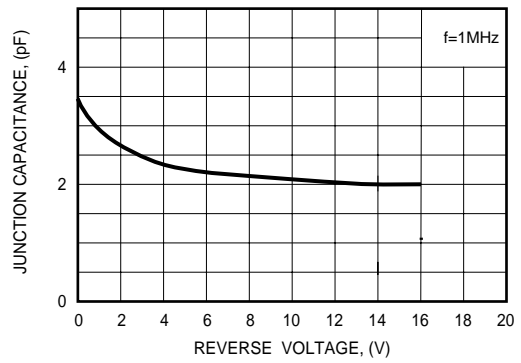


FIG. 5 - REVERSE RECOVERY TIME

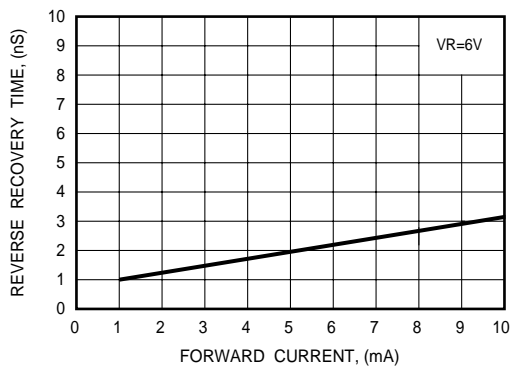


FIG. 6 - REVERSE RECOVERY TIME MEASUREMENT CIRCUIT

