



CHENMKO ENTERPRISE CO.,LTD

BD4148PT

**SURFACE MOUNT
SWITCHING DIODE**

VOLTAGE 75 Volts CURRENT 0.15 Ampere

Lead free devices

APPLICATION

* Ultra high speed switching

FEATURE

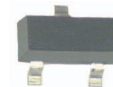
- * SmaBD surface mounting type. (SOT-23)
- * High speed. (TRR=4.0nSec Typ.)
- * Suitable for high packing density.
- * Maximum total power dissipation is 300mW.
- * Peak forward current is 500mA.

CONSTRUCTION

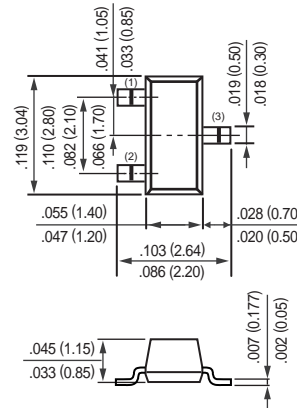
* Silicon epitaxial planar

MARKING

* 5H-



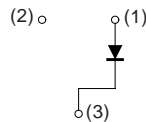
SOT-23



Dimensions in inches and (millimeters)

SOT-23

CIRCUIT



MAXIMUM RATINGS (At TA = 25°C unless otherwise noted)

RATINGS		SYMBOL	BD4148SPT	UNITS
Maximum Non-Repetitive Peak Reverse Voltage		VRM	100	Volts
Maximum Repetitive Peak Reverse Voltage Maximum Working Peak Reverse Voltage Maximum DC Blocking Voltage		VRRM VRRM VDC	75	Volts
Maximum RMS Voltage		VRMS	53	Volts
Maximum Average Forward Rectified Current		Io	0.15	Amps
Peak Forward Surge Current at 1uSec.	@1Sec	IFSM	1.0	Amps
	@1.0uSec		2.0	
Typical Junction Capacitance between Terminal (Note 1)		CJ	4.0	pF
Maximum Reverse Recovery Time (Note 2)		trr	4.0	nSec
Maximum Thermal Resistance		R #JA	350	°C/W
Maximum Operating and Storage Temperature Range		TJ,TSTG	-65 to +150	°C

ELECTRICAL CHARACTERISTICS (At TA = 25°C unless otherwise noted)

CHARACTERISTICS		SYMBOL	BD4148SPT	UNITS
Maximum Instantaneous Forward Voltage at If= 10 mA		VF	1.0	Volts
Maximum Average Reverse Current	VR= 20V @TJ=25°C	IR	25	nAmps uAmps
	VR= 75V @TJ=25°C		50	

NOTES : 1. Measured at 1.0 MHz and applied reverse voltage of 0 volts.
2. Measured at applied forward current of 10 mA, reverse current of 1.0 mA, Reverse voltage of 6.0 volts and RL= 100 ohms.
3. ESD sensitive product handling required.

RATING CHARACTERISTIC CURVES (BD4148PT)

FIG. 1 - FORWARD CHARACTERISTICS

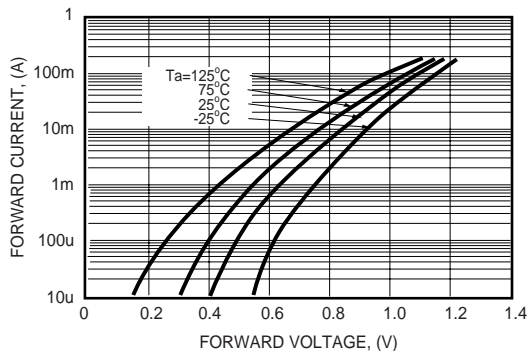


FIG. 2 - REVERSE CHARACTERISTICS

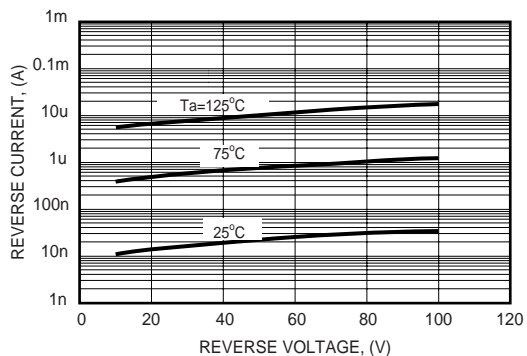


FIG. 3 - TYPICAL JUNCTION CAPACITANCE

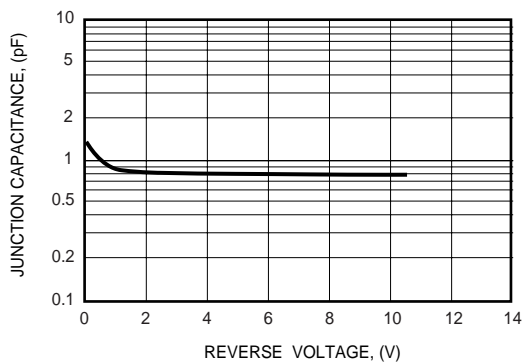


FIG. 4 - REVERSE RECOVERY TIME CHARACTERISTICS

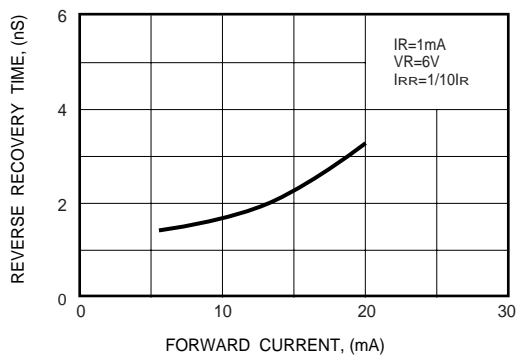


FIG. 5 - MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

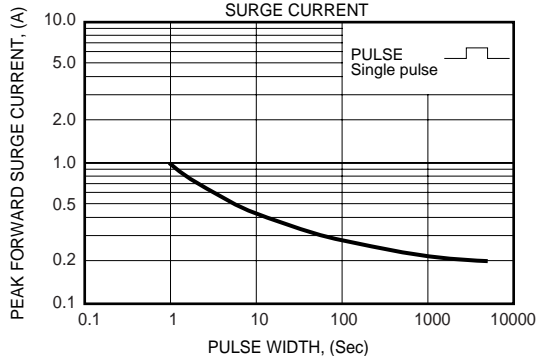


FIG. 6 - REVERSE RECOVERY TIME MEASUREMENT CIRCUIT

