



CHENMKO ENTERPRISE CO.,LTD

Halogens free devices

**SURFACE MOUNT
SWITCHING DIODE**

VOLTAGE 75 Volts CURRENT 0.15 Ampere

BD4148GP

APPLICATION

* Ultra high speed switching

FEATURE

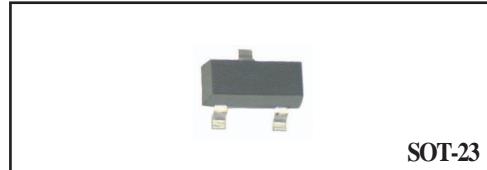
- * SmaBD surface mounting type. (SOT-23)
- * High speed. (TRR=4.0nSec Typ.)
- * Suitable for high packing density.
- * Maximum total power dissipation is 300mW.
- * Peak forward current is 500mA.

CONSTRUCTION

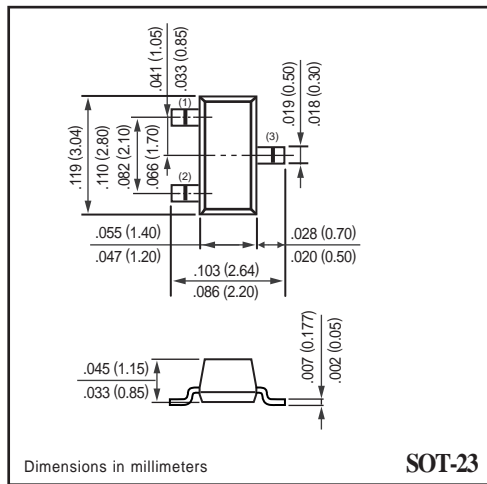
* Silicon epitaxial planar

MARKING

* 5H-



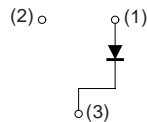
SOT-23



Dimensions in millimeters

SOT-23

CIRCUIT



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

RATINGS	SYMBOL	BD4148SGP	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 VRWM 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	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	BD4148SGP	UNITS
Maximum Instantaneous Forward Voltage at If= 10 mA	VF	1.0	Volts
Maximum Average Reverse Current	IR	VR= 20V @TJ=25°C	25
		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 (BD4148GP)

FIG. 1 - FORWARD CHARACTERISTICS

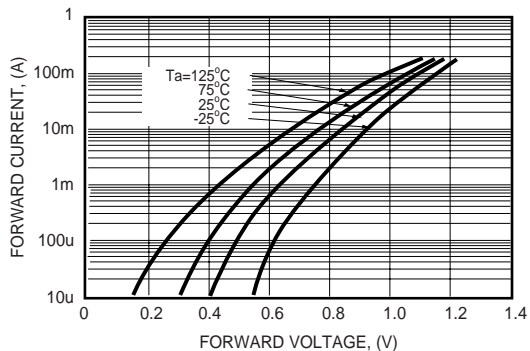


FIG. 2 - REVERSE CHARACTERISTICS

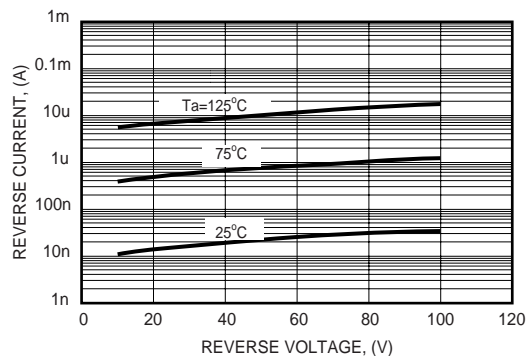


FIG. 3 - TYPICAL JUNCTION CAPACITANCE

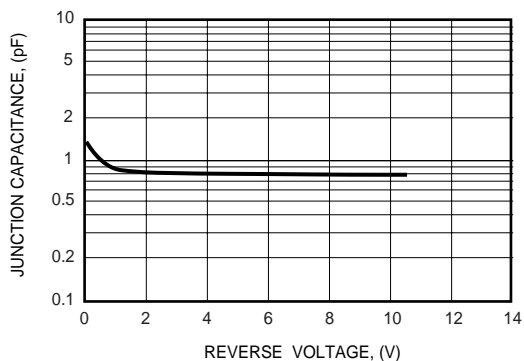


FIG. 4 - REVERSE RECOVERY TIME CHARACTERISTICS

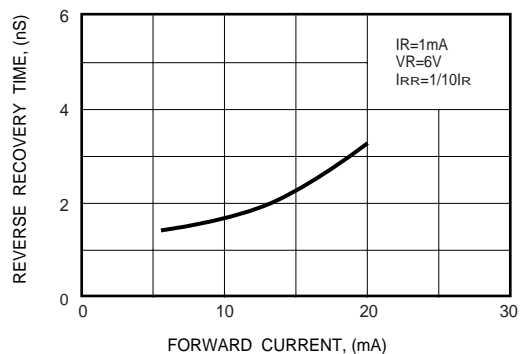


FIG. 5 - MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

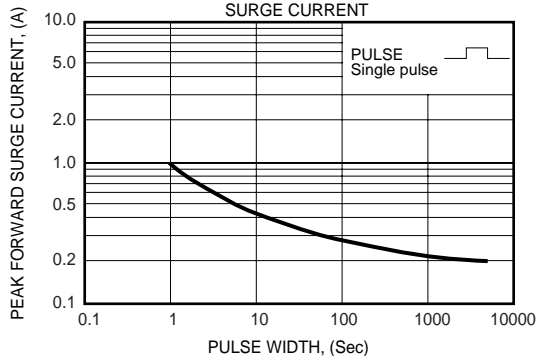


FIG. 6 - REVERSE RECOVERY TIME MEASUREMENT CIRCUIT

