



CHENMKO ENTERPRISE CO.,LTD

1N4148PT

**SURFACE MOUNT
SWITCHING DIODE**

VOLTAGE 75 Volts CURRENT 0.15 Ampere

Lead free devices

APPLICATION

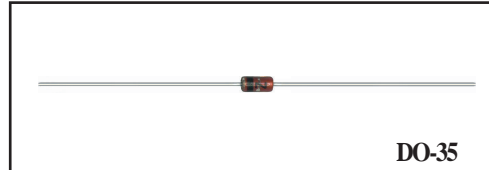
* Ultra high speed switching

FEATURE

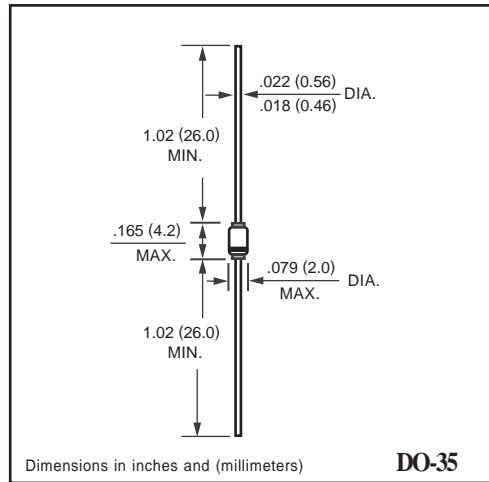
- * Small surface mounting type. (DO-35)
- * High speed. (TRR=4.0nSec Typ.)
- * Suitable for high packing density.
- * Maximum total power dissipation is 500mW.
- * Peak forward current is 500mA.

CONSTRUCTION

* Silicon epitaxial planar



DO-35



DO-35

CIRCUIT



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

RATINGS	SYMBOL	1N4148PT	UNITS
Maximum Non-Repetitive Peak Reverse Voltage	V _{RM}	100	Volts
Maximum Repetitive Peak Reverse Voltage Maximum Working Peak Reverse Voltage Maximum DC Blocking Voltage	V _{RRM} V _{RWM} V _R	75	Volts
Maximum DC Blocking Voltage Maximum RMS Voltage	V _{DC}	53	Volts
Maximum Average Forward Rectified Current	I _O	0.15	Amps
Peak Forward Surge Current at 1uSec.	@1Sec	1.0	Amps
	@1.0uSec	2.0	
Typical Junction Capacitance between Terminal (Note 1)	C _J	4.0	pF
Maximum Reverse Recovery Time (Note 2)	t _{rr}	4.0	nSec
Maximum Thermal Resistance (Note 4)	R _{θJA}	350	°C/W
Maximum Operating and Storage Temperature Range	T _J ,T _{STG}	-65 to +175	°C

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

CHARACTERISTICS	SYMBOL	1N4148PT	UNITS
Maximum Instantaneous Forward Voltage at I _F = 10 mA	V _F	1.0	Volts
Maximum Average Reverse Current	I _R	V _R = 20V @T _J =25°C	5.0
		V _R = 75V @T _J =25°C	25
		V _R = 20V @T _J =150°C	30
		V _R = 70V @T _J =150°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 R_L= 100 ohms.
 3. ESD sensitive product handling required.
 4. Valid provided that leads at a distance of 8 mm from case are kept at ambient temperature.

RATING CHARACTERISTIC CURVES (1N4148PT)

FIG. 1 - FORWARD CHARACTERISTICS

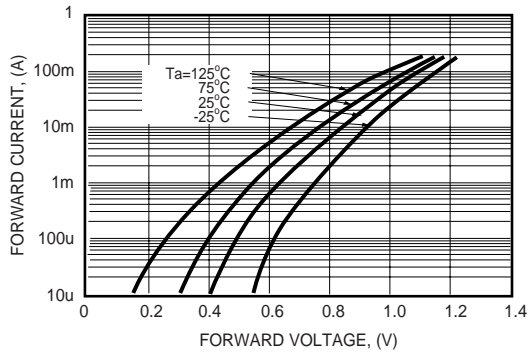


FIG. 2 - REVERSE CHARACTERISTICS

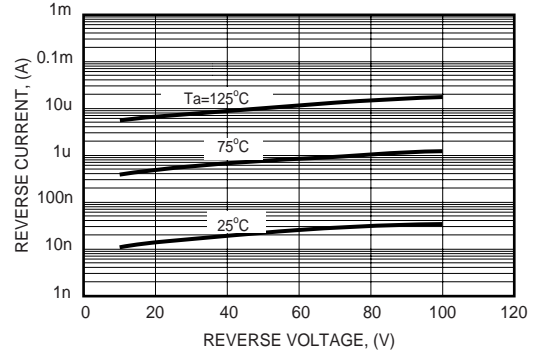


FIG. 3 - TYPICAL JUNCTION CAPACITANCE

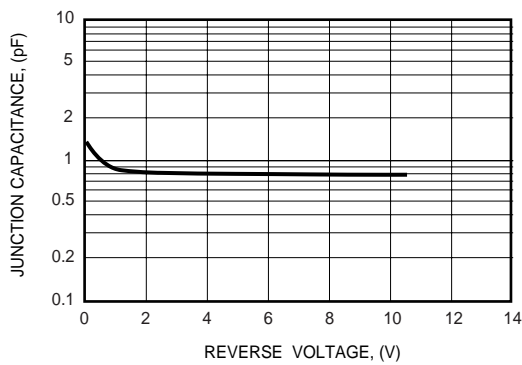


FIG. 4 - REVERSE RECOVERY TIME CHARACTERISTICS

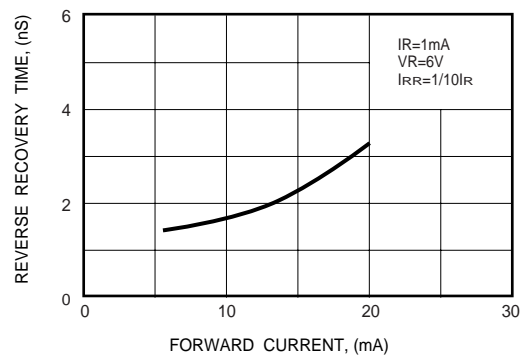


FIG. 5 - MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

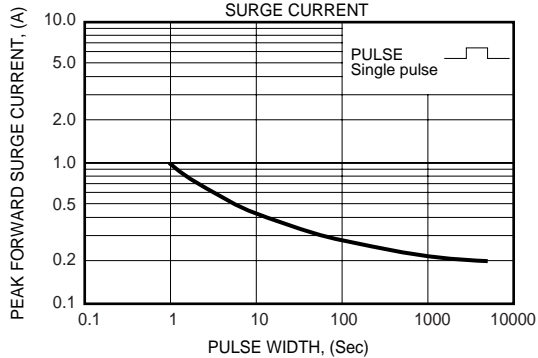


FIG. 6 - REVERSE RECOVERY TIME MEASUREMENT CIRCUIT

