CHENMKO ENTERPRISE CO.,LTD

SURFACE MOUNT GLASS PASSIVATED

FAST RECOVERY SILICON RECTIFIER

VOLTAGE RANGE 50 - 1000 Volts CURRENT 1.0 Ampere

FPL11PT

THRU

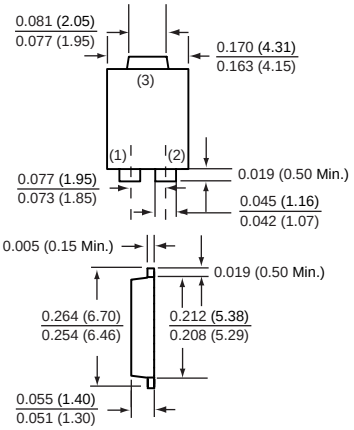
FPL17PT

Lead free devices

FEATURE

*Small Surface Mounting Type. (SMP)
* Low leakage current
* Fast recovery times for high efficiency
* Glass passivated junction
* High temperature soldering guaranteed : 260°C/10 seconds at terminals

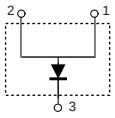
SMP



Dimensions in inches and (millimeters)

SMP

CIRCUIT



MAXIMUM RATINGES (At T_A = 25°C unless otherwise noted)

RATINGS		SYMBOL	FPL11PT	FPL12PT	FPL13PT	FPL14PT	FPL15PT	FPL16PT	FPL17PT	UNITS
Maximum Recurrent Peak Reverse Voltage		V_{RRM}	50	100	200	400	600	800	1000	Volts
Maximum RMS Voltage		V_{RMS}	35	70	140	280	420	560	700	Volts
Maximum DC Blocking Voltage		V_{DC}	50	100	200	400	600	800	1000	Volts
Maximum Average Forward Rectified Current T_L = 110°C		I_O	1.0							Amps
Peak Forward Surge Current 8.3 ms single half sine-wave superimposed on rated load (JEDEC method)		I_{FSM}	30							Amps
Typical Junction Capacitance (Note 1)		C_J	15							pF
Maximum Thermal Resistance	(Note 2)	$R_{\theta JL}$	30							°C / W
	(Note 3)	$R_{\theta JA}$	75							°C / W
Operating and Storage Temperature Range		T_J, T_{STG}	-65 to +150							°C

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

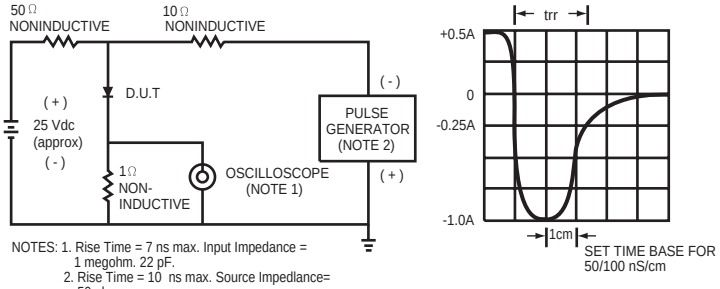
CHARACTERISTICS	SYMBOL	FPL11PT	FPL12PT	FPL13PT	FPL14PT	FPL15PT	FPL16PT	FPL17PT	UNITS
Maximum Instantaneous Forward Voltage at 1.0 A DC	V_F	1.3							Volts
Maximum DC Reverse Current at Rated DC Blocking Voltage at T_A = 25°C	I_R	5.0							uAmps
Maximum Full Load Reverse Current Average, Full Cycle at T_A = 55°C		100							uAmps
Maximum Reverse Recovery Time (Note 4)	trr	150				250	500		nSec

2004-7

NOTES : 1. Measured at 1.0 MHz and applied reverse voltage of 4.0 volts
2. Thermal Resistance Junction to terminal 6.0 mm^2 copper pads to each terminal
3. Thermal Resistance Junction to ambient 6.0 mm^2 copper pads to each terminal
4. Test Conditions : I_F = 0.5 A, I_R = -1.0 A, I_{RR} = -0.25 A

RATING CHARACTERISTIC CURVES (FPL11PT THRU FPL17PT)

FIG. 1 - TEST CIRCUIT DIAGRAM AND REVERSE RECOVERY TIME CHARACTERISTIC



NOTES: 1. Rise Time = 7 ns max. Input Impedance = 1 megohm. 22 pF.
2. Rise Time = 10 ns max. Source Impedlance= 50 ohms.

FIG. 2 - TYPICAL FORWARD CURRENT DERATING CURVE

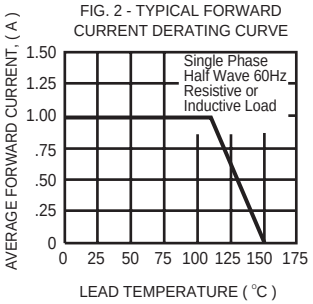


FIG. 3 - TYPICAL REVERSE CHARACTERISTICS

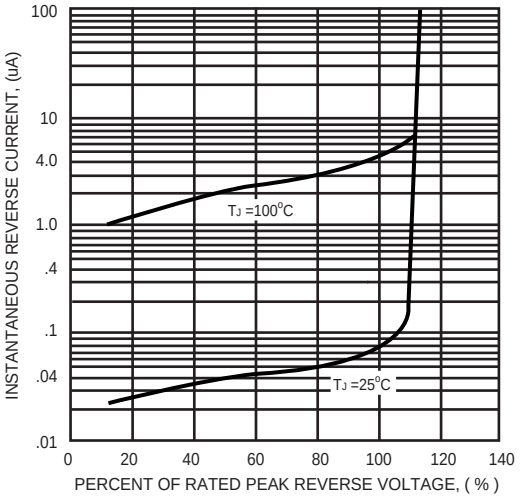


FIG. 4 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

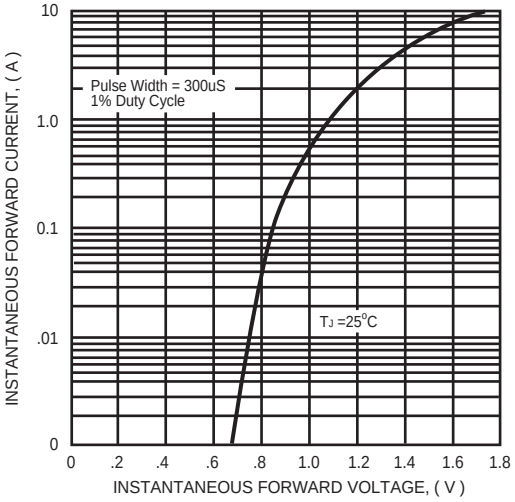


FIG. 5 - MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

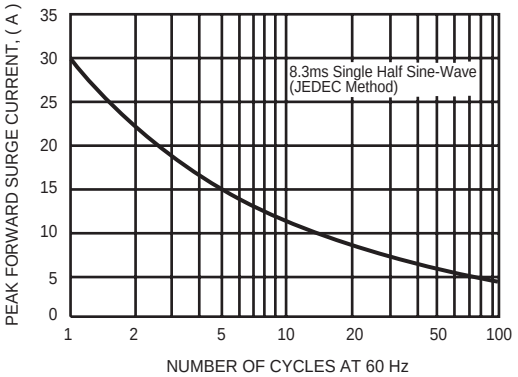


FIG. 6 - TYPICAL JUNCTION CAPACITANCE