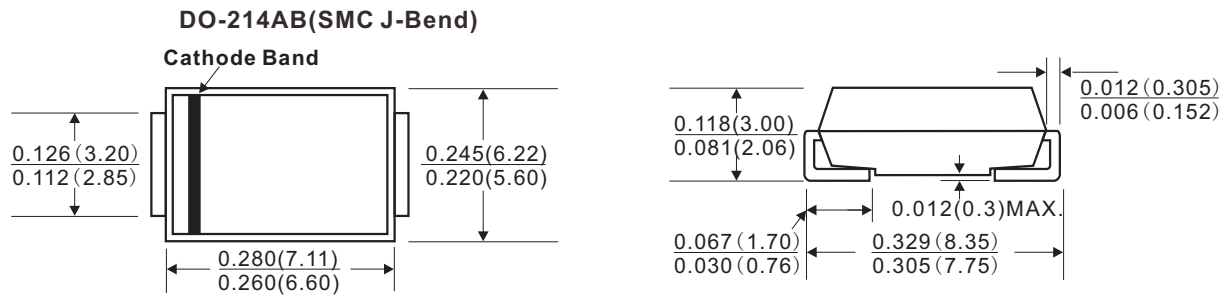


Dimensions (DO-214AB)



Dimensions in inches and(millimeters)

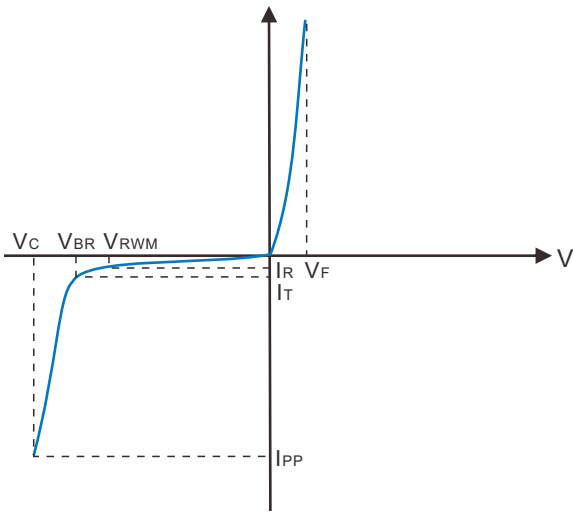
Electrical Characteristics

TSE Part Number		Device Marking Code		Reverse Stand-Off Voltage	Breakdown Voltage @IT		Test Current	Maximum Clamping Voltage @Ipp	Peak Pulse Current	Reverse Leakage @VRWM
UNI-Polar	BI-Polar	UNI	BI	VRWM(V)	VBR(V)Min.	VBR(V)Max.	IT(mA)	Vc(V)	Ipp(A)	IR(μA)
TSE6.0U	TSE6.0B	RDG	DDG	6.0	6.67	7.37	10	10.3	349.5	200
TSE8.0U	TSE8.0B	PDR	DDR	8.0	8.89	9.83	1	13.6	264.7	50
TSE12U	TSE12B	PEE	DEE	12.0	13.30	14.70	1	19.9	180.9	1
TSE15U	TSE15B	PEM	DEM	15.0	16.70	18.50	1	24.4	147.5	1
TSE16U	TSE16B	PEP	DEP	16.0	17.80	19.70	1	26.0	138.5	1
TSE20U	TSE20B	PEV	DEV	20.0	22.20	24.50	1	32.4	111.1	1
TSE22U	TSE22B	PEX	DEX	22.0	24.40	26.90	1	35.5	101.4	1
TSE26U	TSE26B	PFE	DFE	26.0	28.90	31.90	1	42.1	85.5	1
TSE28U	TSE28B	PFG	DFG	28.0	31.10	34.40	1	45.4	79.3	1
TSE30U	TSE30B	PFK	DFK	30.0	33.30	36.80	1	48.4	74.4	1
TSE33U	TSE33B	PFM	DFM	33.0	36.70	40.60	1	53.3	67.5	1
TSE36U	TSE36B	PFP	DFP	36.0	40.00	44.20	1	58.1	62.0	1
TSE40U	TSE40B	PFR	DFR	40.0	44.40	49.10	1	64.5	55.7	1
TSE58U	TSE58B	PGG	DGG	58.0	64.40	71.20	1	93.6	38.5	1
TSE60U	TSE60B	PGK	DGK	60.0	66.70	73.70	1	96.8	37.2	1

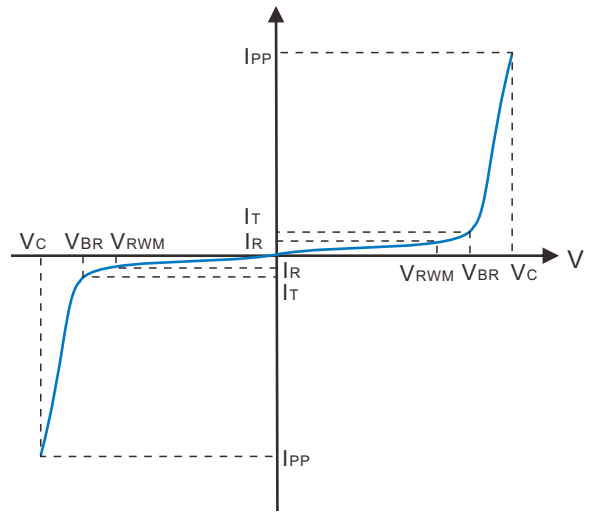
For bidirectional type having VWRM of 10 volts and less, the IR limit is double.

I-V Curve Characteristics

Uni-directional



Bi-directional



Ratings And Characteristic Curves(TA=25°C Unless otherwise noted)

Fig.1 Peak Pulse Power Rating

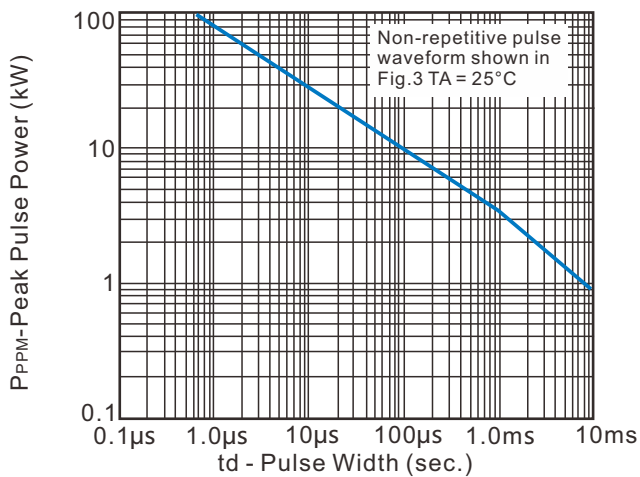


Fig.2 Pulse Derating Curve

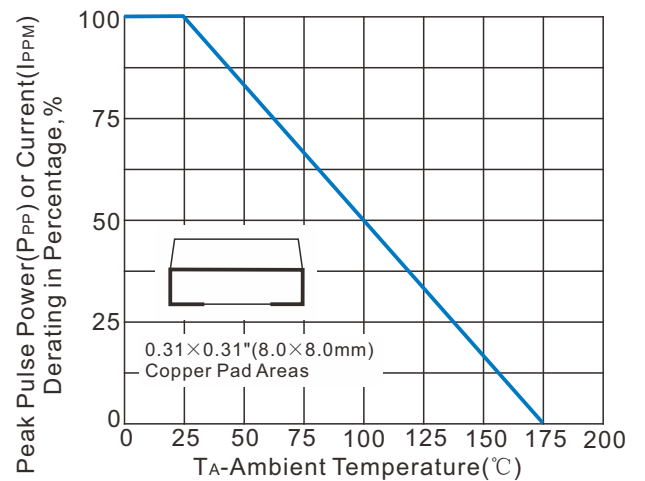


Fig.3 Pulse Waveform

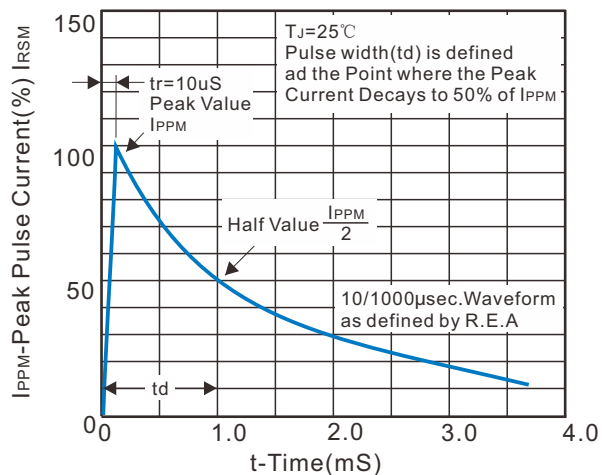
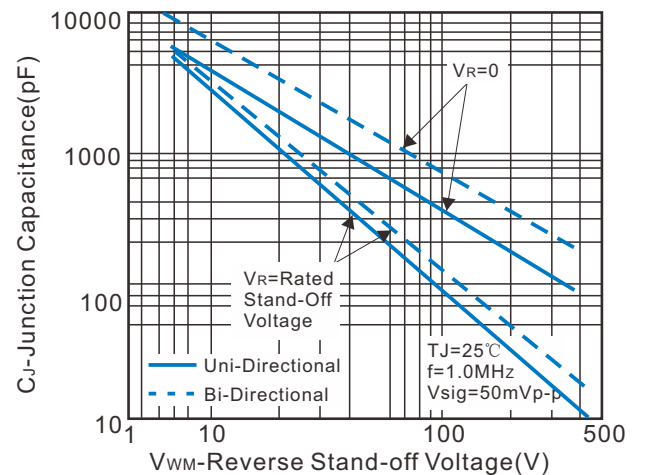


Fig.4 Typical Junction Capacitance



Ratings And Characteristic Curves

Fig.5 Typ. Transient Thermal Impedance

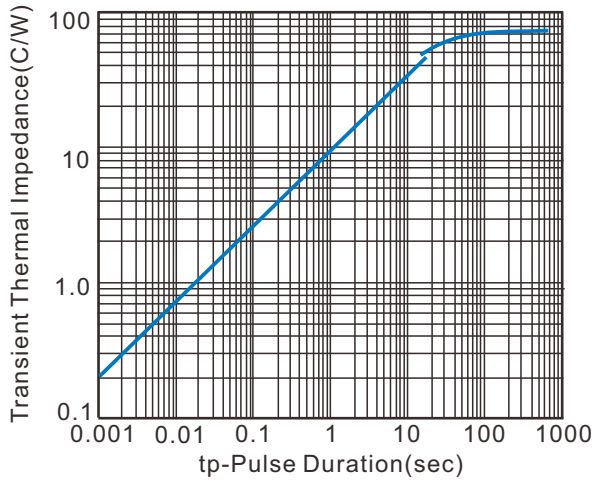
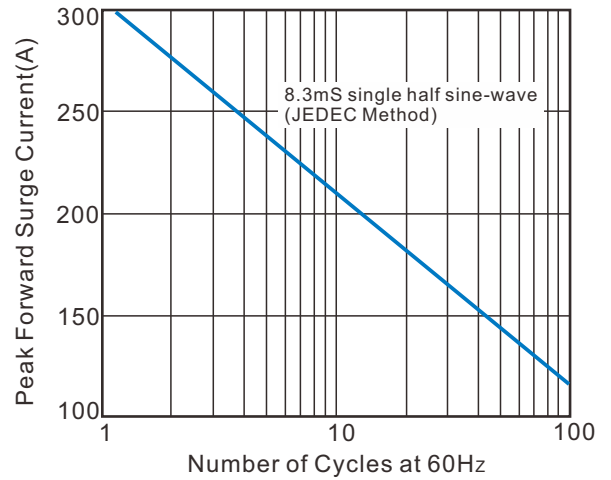


Fig.6 Maximum Non-Repetitive Peak Forward Surge Current Uni-Directional Only

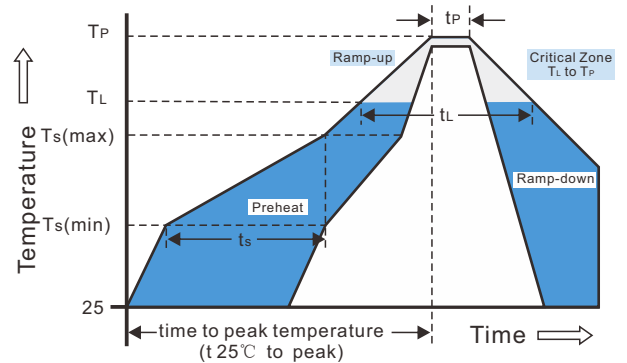


Recommended Soldering Conditions

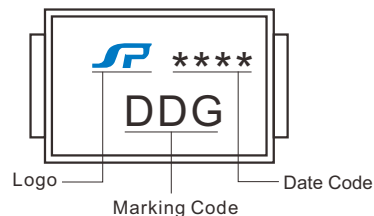
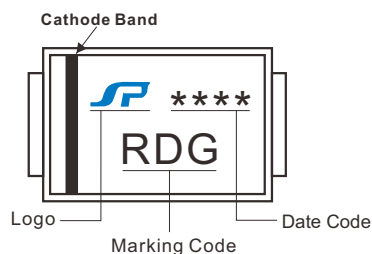
Recommended Conditions

Reflow Condition		Pb-Free assembly (see Fig.1)
Pre Heat	-Temperature Min($T_{s(min)}$)	+150°C
	-Temperature Max($T_{s(max)}$)	+200°C
	-Time(Min to Max)(t_s)	60-180secs
Average ramp up rate (Liquidus Temp(T_L) to peak)		3°C/sec.Max.
$T_{s(max)}$ to T_L -Ramp-up Rate		3°C/sec.Max.
Reflow	-Temperature(T_L)(Liquidus)	+217°C
	-Temperature(t_L)	60-150secs
Peak Temp(T_P)		+260(+0/-5)°C
Time within 5°C of actual Peak Temp(t_P)		30 secs.Max.
Ramp-down Rate		6°C/sec.Max.
Time 25°C to Peak Temp(T_P)		8 min.Max.
Do not exceed		+260°C

Reflow Soldering



Marking Code



Packing Options And Reel Specification-DO-214AB

Symbol	Ea Per Reel	REEL DIA (mm)	Industry Standard
TSE***	500	178	EIARS-481

