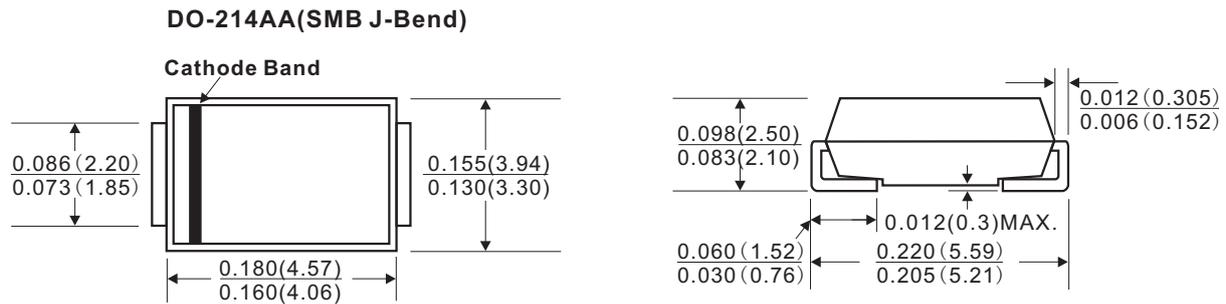


Dimensions (DO-214AA)



Dimensions in inches and (millimeters)

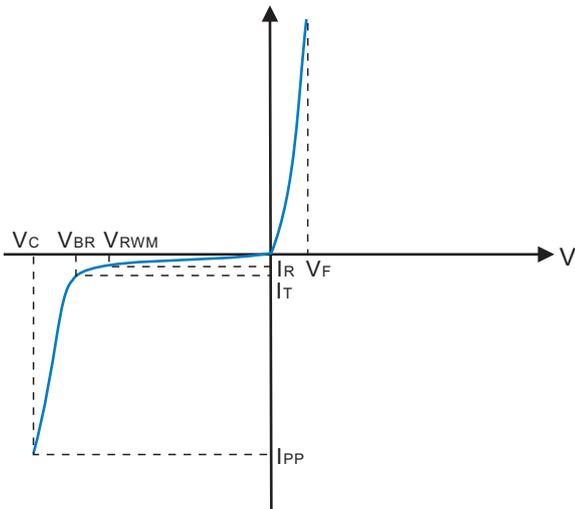
Electrical Characteristics

TSC Part Number		Device Marking Code		Reverse Stand-Off Voltage	Breakdown Voltage @IT		Test Current	Maximum Clamping Voltage @I _{PP}	Peak Pulse Current	Reverse Leakage @V _{RWM}
UNI-Polar	BI-Polar	UNI	BI	V _{RWM} (V)	V _{BR} (V)Min.	V _{BR} (V)Max.	I _T (mA)	V _C (V)	I _{PP} (A)	I _R (μA)
TSC5.0U	TSC5.0B	KE	AE	5.0	6.40	7.00	10	9.2	78.2	500
TSC6.0U	TSC6.0B	KG	AG	6.0	6.67	7.37	10	10.3	70.0	100
TSC6.5U	TSC6.5B	KK	AK	6.5	7.22	7.98	10	11.2	64.2	100
TSC8.0U	TSC8.0B	KR	AR	8.0	8.89	9.83	1	13.6	52.9	50
TSC10U	TSC10B	KX	AX	10.0	11.10	12.30	1	17.0	42.3	5
TSC12U	TSC12B	LE	BE	12.0	13.30	14.70	1	19.9	36.2	1
TSC15U	TSC15B	LM	BM	15.0	16.70	18.50	1	24.4	29.5	1
TSC16U	TSC16B	LP	BP	16.0	17.80	19.70	1	26.0	27.7	1
TSC18U	TSC18B	LT	BT	18.0	20.00	22.10	1	29.2	24.7	1
TSC20U	TSC20B	LV	BV	20.0	22.20	24.50	1	32.4	22.2	1
TSC22U	TSC22B	LX	BX	22.0	24.40	26.90	1	35.5	20.3	1
TSC24U	TSC24B	LZ	BZ	24.0	26.70	29.50	1	38.9	18.5	1
TSC26U	TSC26B	ME	CE	26.0	28.90	31.90	1	42.1	17.0	1
TSC28U	TSC28B	MG	CG	28.0	31.10	34.40	1	45.4	15.9	1
TSC30U	TSC30B	MK	CK	30.0	33.30	36.80	1	48.4	14.9	1
TSC33U	TSC33B	MM	CM	33.0	36.70	40.60	1	53.3	13.5	1
TSC36U	TSC36B	MP	CP	36.0	40.00	44.20	1	58.1	12.4	1
TSC40U	TSC40B	MR	CR	40.0	44.40	49.10	1	64.5	11.2	1
TSC43U	TSC43B	MT	CT	43.0	47.80	52.80	1	69.4	10.3	1
TSC51U	TSC51B	MZ	CZ	51.0	56.70	62.70	1	82.4	8.7	1
TSC58U	TSC58B	NG	DG	58.0	64.40	71.20	1	93.6	7.7	1
TSC60U	TSC60B	NK	DK	60.0	66.70	73.70	1	96.8	7.4	1
TSC150U	TSC150B	PM	EM	150.0	167.00	185.00	1	243.0	3.0	1
TSC170U	TSC170B	PR	ER	170.0	189.00	209.00	1	275.0	2.6	1
TSC440U	TSC440B	QM	FM	440.0	492.00	534.00	1	713.0	1.0	1

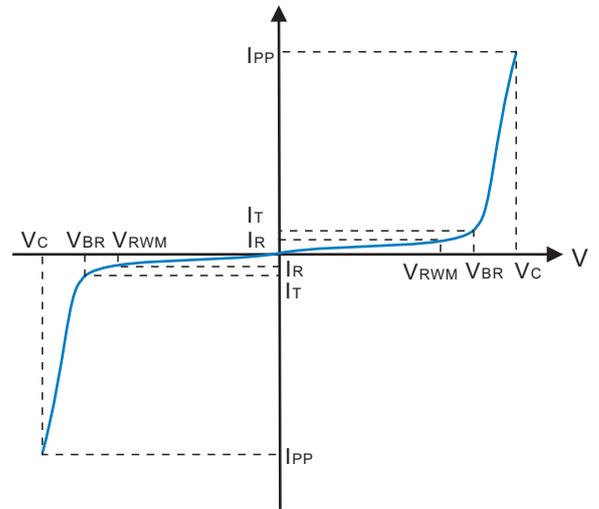
For bidirectional type having V_{RWM} of 10 volts and less, the I_R limit is double.

I-V Curve Characteristics

Uni-directional



Bi-directional



Ratings And Characteristic Curves ($T_A=25^\circ\text{C}$ Unless otherwise noted)

Fig.1 Peak Pulse Power Rating

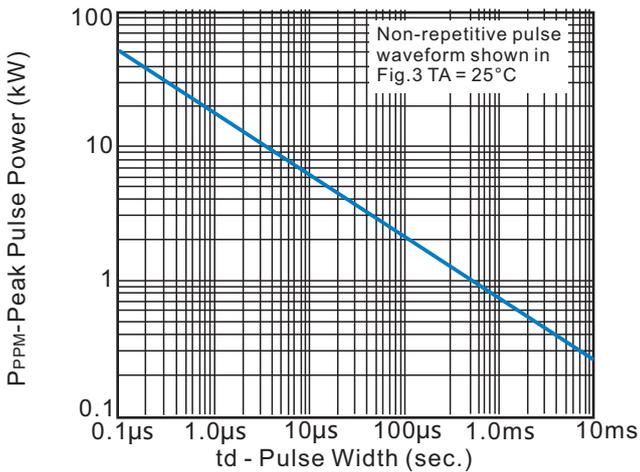


Fig.2 Pulse Derating Curve

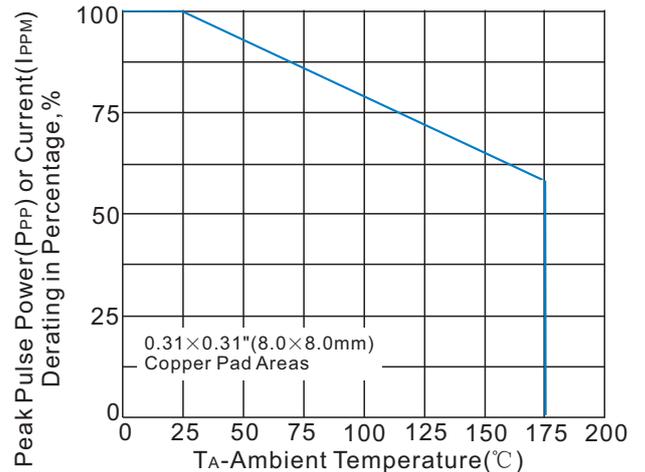


Fig.3 Pulse Waveform

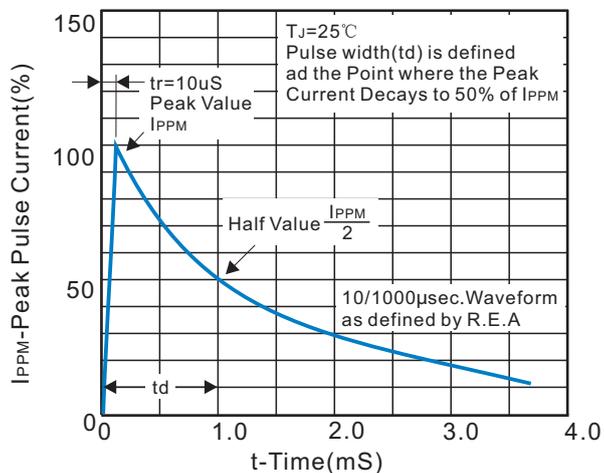
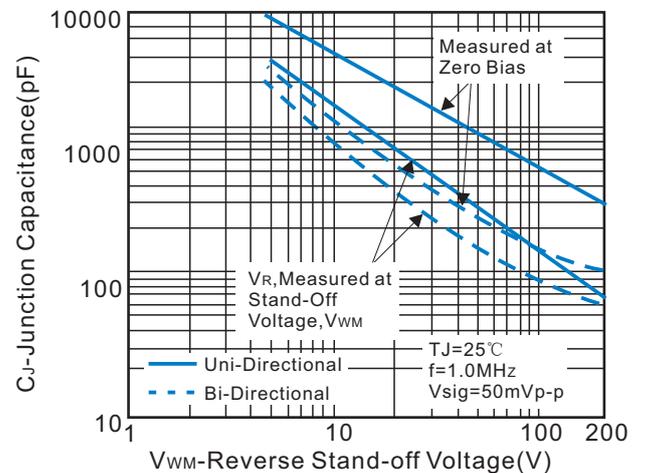


Fig.4 Typical Junction Capacitance



Ratings And Characteristic Curves($T_A=25^{\circ}\text{C}$ Unless otherwise noted)

Fig.5 Typ. Transient Thermal Impedance

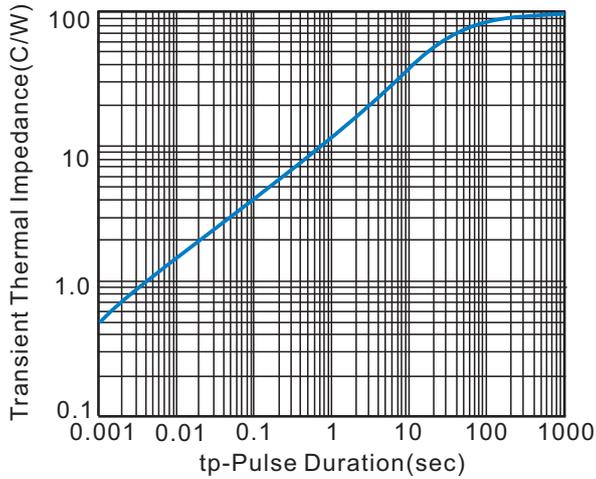
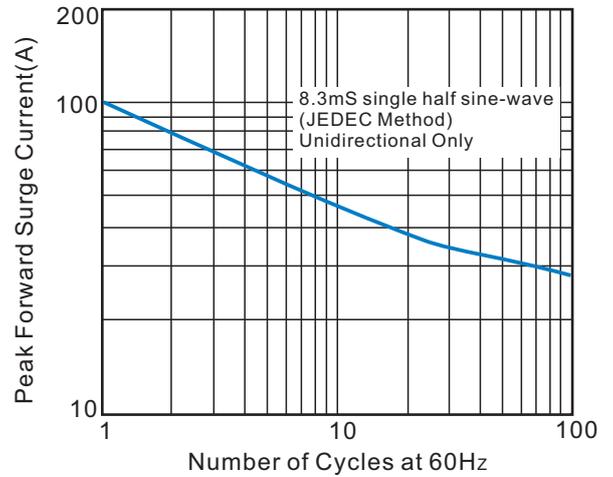


Fig.6 Maximum Non-Repetitive Peak Forward Surge Current Uni-Directional Only

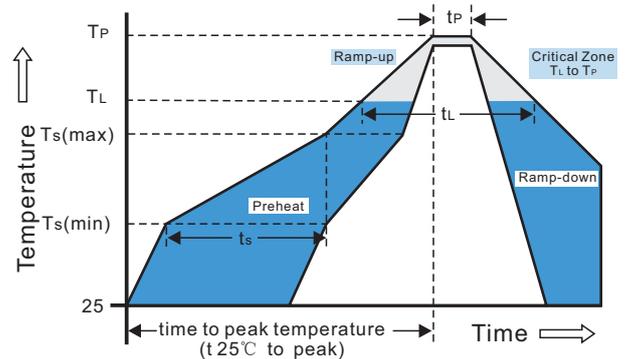


Recommended Soldering Conditions

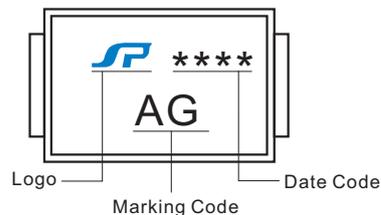
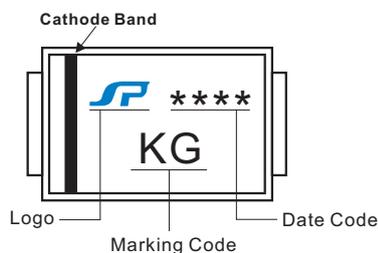
Recommended Conditions

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

Reflow Soldering



Marking Code



Packing Options And Reel Specification-DO-214AA

Symbol	Ea Per Reel	REEL DIA (mm)	Industry Standard
TSC***	3000	330	EIARS-481

