

FEATURES

- Silicon technology
- Cannot be damaged by voltage
- Low capacitance
- Eliminate voltage overshoot
- Epoxy resin package
- Will not fatigue
- Complies with following standards:
 - GR1089
 - ITU K.20, K.21 and K.45
 - IEC 60950
 - UL 60950
 - TIA-968
- RoHS Compliant

APPLICATIONS

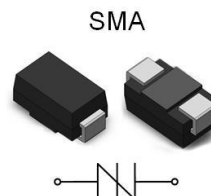
- COMMERCIAL SYSTEMS
- INDUSTRIAL & INSTRUMENTATION
- COMMUNICATIONS

GK xxx
PxxTB

- "GK" represents the brand name
- "XXX" represents the periodic code
- "PxxTB" represents the product type marking

MECHANICAL DATA

- Package: SMA
- Lead Finish: Matte Tin
- Case Material: Epoxy Molding Compound.
- UL Flammability Classification Rating 94V-0
- Moisture Sensitivity: Level 1 per J-STD-020



MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Parameter	Symbol	Value	Units	Remarks
Peak Pulse Voltage	V_{PP}	4000	V	10/700us
Peak Pulse Current	I_{PP}	80	A	10/1000us
Peak Pulse Current	I_{PK}	250	A	8/20us
Peak One-cycle Surge Current	I_{TSM}	25	A	60HZ
Rate of Rise of Current	d_i/d_t	500	A/us	
Typical Thermal Resistance Junction to Lead	$R_{\theta JL}$	30	°C/W	
Typical Thermal Resistance Junction to Ambient	$R_{\theta JA}$	120	°C/W	
Operating Temperature Range	T_J	-40 to 150	°C	
Storage Temperature Range	T_{STG}	-55 to 150	°C	

Electrical Characteristics (Ta=25°C Unless otherwise specified)

Pact Number	Marking	I _H	V _S	I _{SLMT}	V _T	I _T	I _D	V _D	C _O
		(mA)	(V)	(mA)	(V)	(A)	(uA)	(V)	(pF)
			100KV/S		@I _T		@ V _D		1MHZ,2V _{DC}
		MIN.	MAX.		MAX.		MAX.		TYP
GKP0080TB	P06TB	40	25	500	4	2.2	5	6	32
GKP0220TB	P22TB	40	30	500	4	2.2	5	15	84
GKP0300TB	P30TB	40	40	500	4	2.2	5	25	80
GKP0640TB	P64TB	120	77	800	4	2.2	5	58	76
GKP0720TB	P07TB	120	88	800	4	2.2	5	65	76
GKP0900TB	P09TB	120	98	800	4	2.2	5	78	76
GKP1100TB	P11TB	120	130	800	4	2.2	5	90	72
GKP1300TB	P13TB	120	160	800	4	2.2	5	120	72
GKP1500TB	P15TB	120	180	800	4	2.2	5	140	68
GKP1800TB	P18TB	120	220	800	4	2.2	5	170	64
GKP2300TB	P23TB	120	260	800	4	2.2	5	190	60
GKP2600TB	P26TB	120	300	800	4	2.2	5	220	56
GKP3100TB	P31TB	120	350	800	4	2.2	5	275	52
GKP3500TB	P35TB	120	400	800	4	2.2	5	320	48
GKP4200TB	P42A	120	550	800	4	2.2	5	400	36

RATING AND CHARACTERISTIC CURVES

Figure 1: Peak Pulse Current Rating

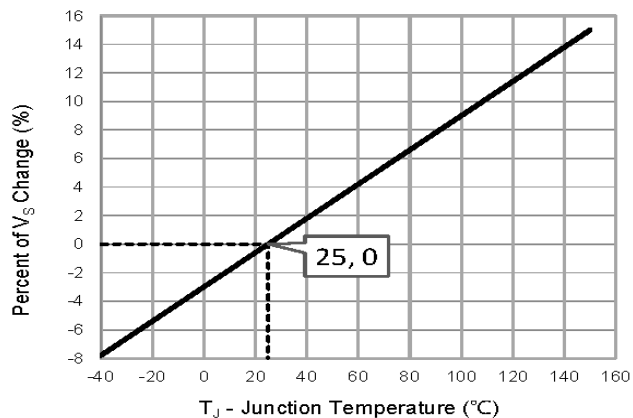


Figure 2: Normalized DC Holding Current

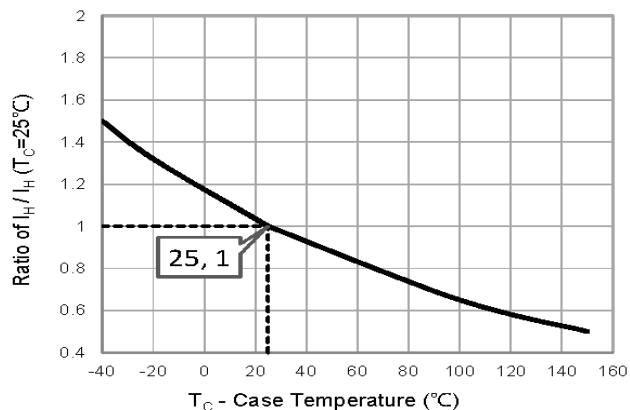


Figure 3 : t_r/t_d us Pulse Waveform

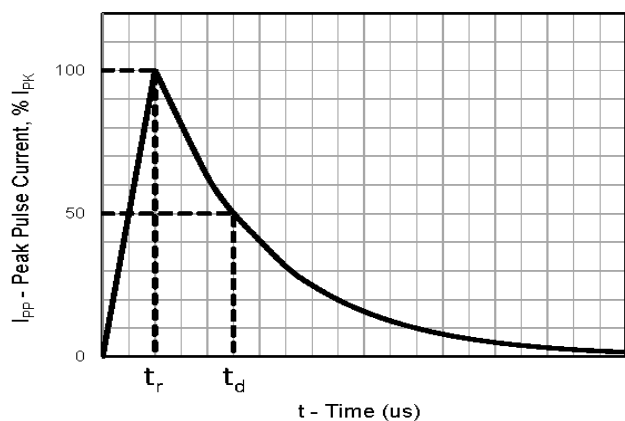


Figure 4: VI Curve

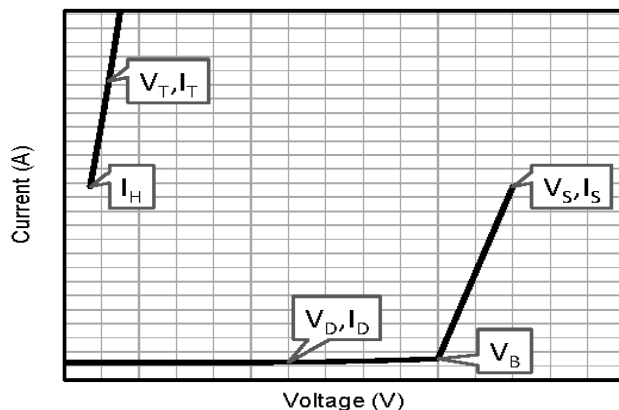
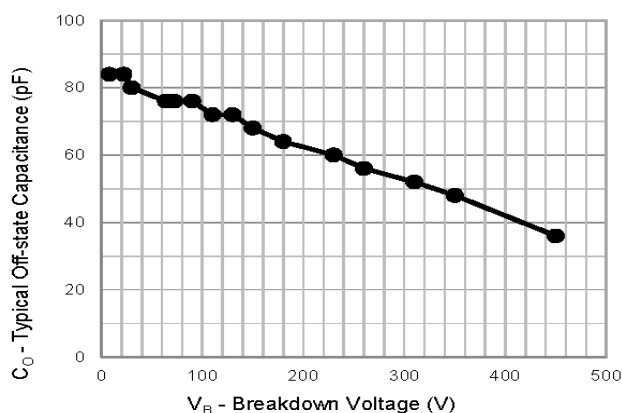


Figure 5: Peak Pulse Current Rating

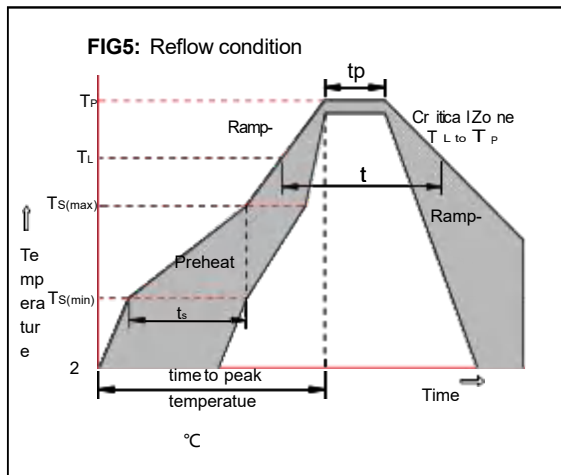


Figure 6: Typical Off-state Capacitance



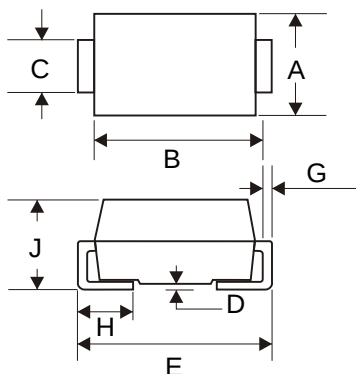
Soldering parameters

Reflow Condition		Pb-Free assembly (see as below)
Pre Heat	-Temperature Min ($T_{s(min)}$)	+150 °C
	-Temperature Max($T_{s(max)}$)	+200 °C
	-Time (Min to Max) (ts)	60-180 secs.
Average ramp up rate (Liquid us 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)(Liquid us)	+217 °C
	-Temperature(t_L)	60-150 secs.
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

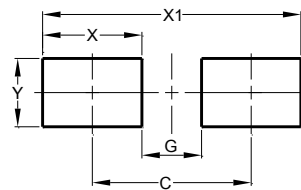


Package Dimensions & Suggested Pad Layout

SMA

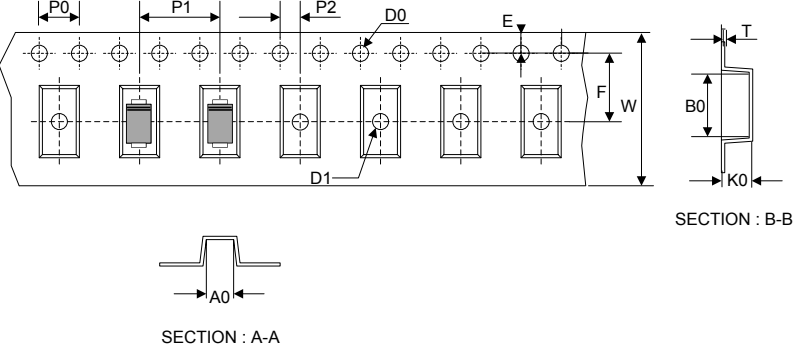
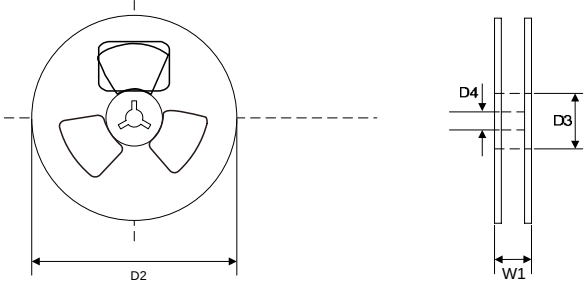
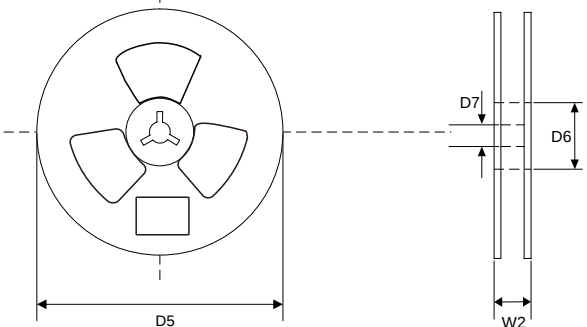


SMA		
Dim	Min	Max
A	2.40	2.79
B	3.99	4.50
C	1.32	1.47
D	-	0.20
E	4.93	5.28
G	0.15	0.31
H	0.76	1.52
J	1.98	2.29
All Dimensions in mm		



Dimensions	Value (in mm)
C	4.20
G	1.90
X	2.30
X1	6.50
Y	2.00

Tape & reel specification

Tape 	Symbol	Dimension (mm)
	P0	4.00±0.20
	P1	8.00±0.20
	P2	2.00±0.20
	D0	1.60±0.20
	D1	1.60±0.20
	E	1.75±0.20
	F	5.50±0.15
	W	12.00±0.25
	A0	2.75±0.20
	B0	5.25±0.20
	K0	2.45±0.25
	T	0.20±0.10
7" Reel 	D2	176.0±5.0
	D3	55.0Min.
	D4	14.0±2.5
	W1	14.0±2.5
	Quantity: 2000PCS	
13" Reel 	D5	330.0±5.0
	D6	73.0Min.
	D7	14.0±2.5
	W2	14.0±2.5
	Quantity: 5000PCS	