

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

MECHANICAL DATA

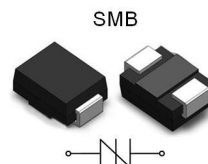
- Package: SMB
- Lead Finish: Matte Tin
- Case Material: Epoxy Molding Compound.
- UL Flammability Classification Rating 94V-0
- Moisture Sensitivity: Level 1 per J-STD-020

GK xxx
PxxC

APPLICATIONS

- COMMERCIAL SYSTEMS
- INDUSTRIAL & INSTRUMENTATION
- COMMUNICATIONS

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



MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Parameter	Symbol	Value	Units	Remarks
Peak Pulse Voltage	V_{PP}	6000	V	10/700us
Peak Pulse Current	I_{PP}	100	A	10/1000us
Peak Pulse Current	I_{PK}	400	A	8/20us
Peak One-cycle Surge Current	I_{TSM}	30	A	60HZ
Rate of Rise of Current	d_i/d_t	500	A/us	
Typical Thermal Resistance Junction to Lead	$R_{\theta JL}$	20	°C/W	
Typical Thermal Resistance Junction to Ambient	$R_{\theta JA}$	100	°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
GKP0060SC	P006C	50	15	800	4	2.2	5	6	80
GKP0080SC	E-8C	40	25	500	4	2.2	5	6	105
GKP0220SC	P02C	40	30	500	4	2.2	5	15	105
GKP0300SC	P03C	40	40	500	4	2.2	5	25	100
GKP0640SC	P06C	120	77	800	4	2.2	5	58	95
GKP0720SC	P07C	120	88	800	4	2.2	5	65	95
GKP0900SC	P09C	120	98	800	4	2.2	5	75	95
GKP1100SC	P11C	120	130	800	4	2.2	5	90	90
GKP1300SC	P13C	120	160	800	4	2.2	5	120	90
GKP1500SC	P15C	120	180	800	4	2.2	5	140	85
GKP1800SC	P18C	120	220	800	4	2.2	5	170	80
GKP2300SC	P23C	120	260	800	4	2.2	5	190	75
GKP2600SC	P26C	120	300	800	4	2.2	5	220	70
GKP3100SC	P31C	120	350	800	4	2.2	5	275	65
GKP3500SC	P35C	120	400	800	4	2.2	5	320	60
GKP4200SC	P42C	120	550	800	4	2.2	5	400	45
GKP8000SC	P80C	120	900	1350	4	2.2	5	760	40

RATING AND CHARACTERISTIC CURVES

Figure 1: Peak Pulse Current Rating

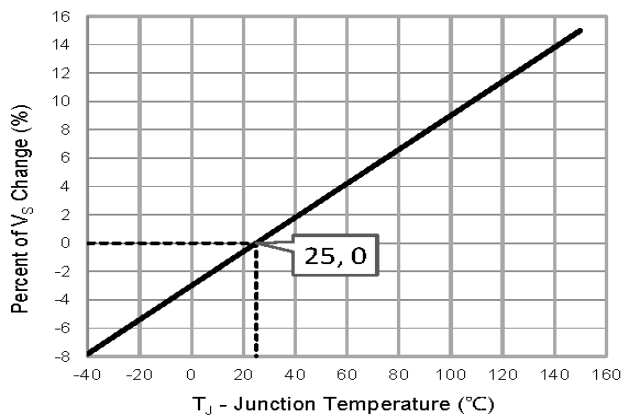


Figure 2: Normalized DC Holding Current

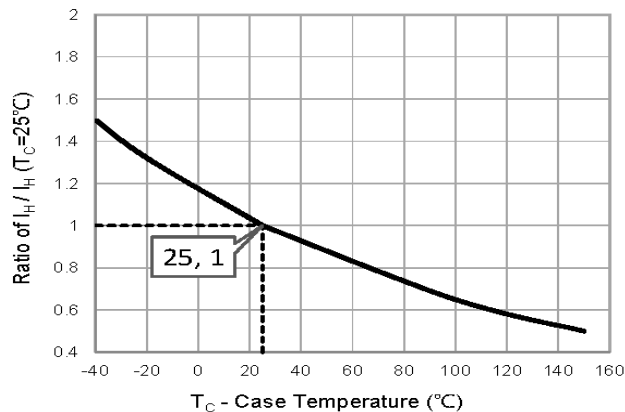


Figure 3 : t_r/t_d us Pulse Waveform

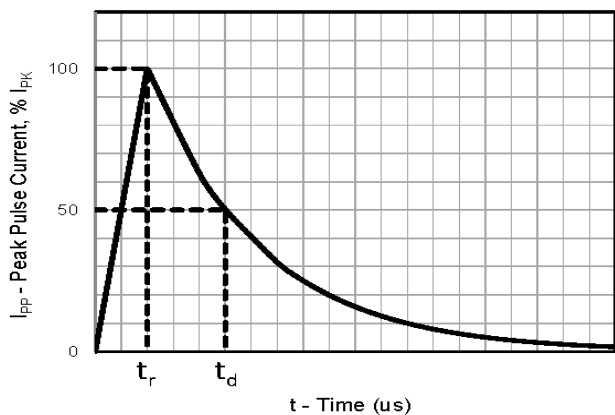


Figure 4: VI Curve

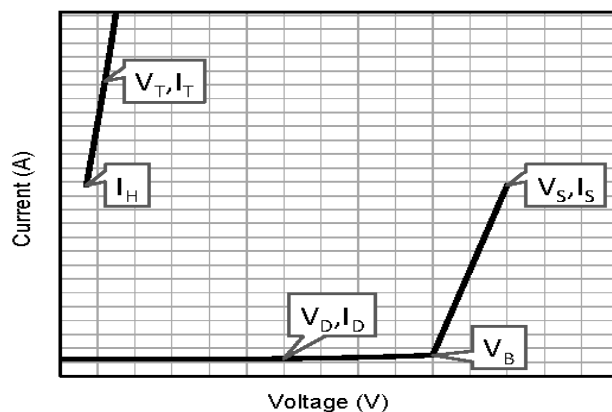


Figure 5: Peak Pulse Current Rating

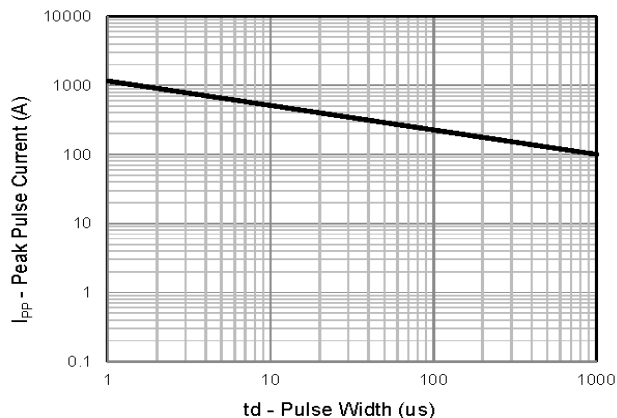
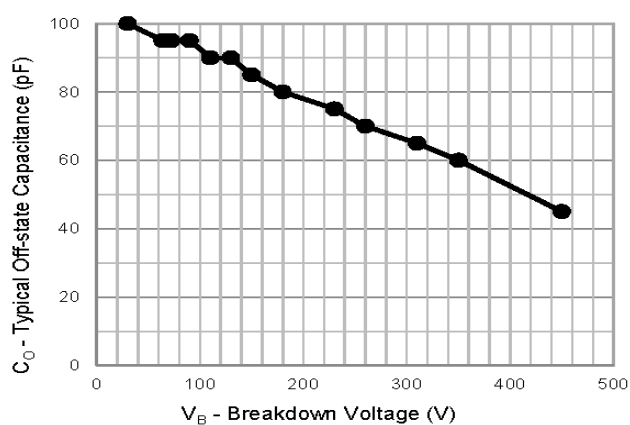
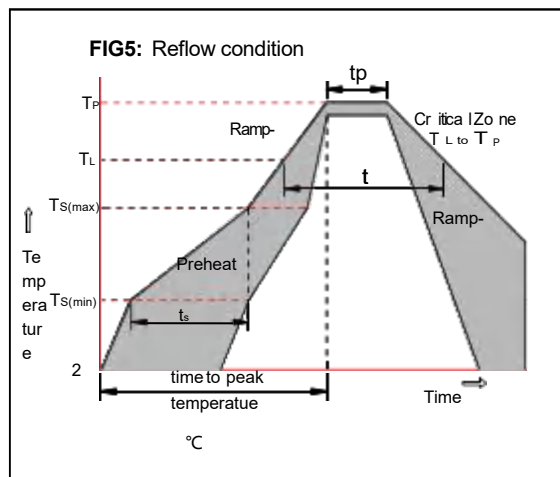


Figure 6: Typical Off-state Capacitance



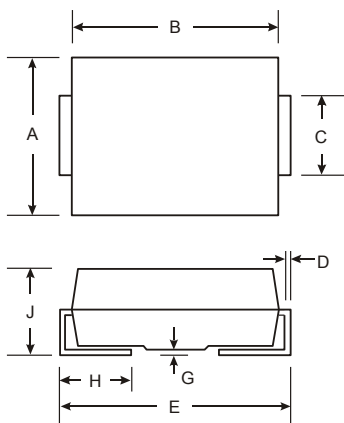
Soldering parameters

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

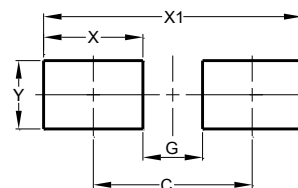


Package Dimensions & Suggested Pad Layout

SMB

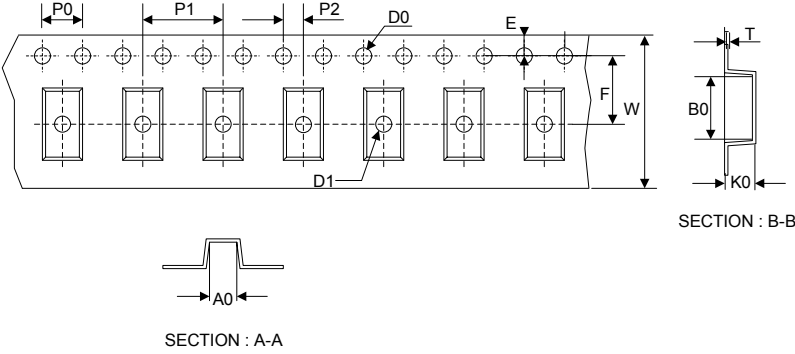
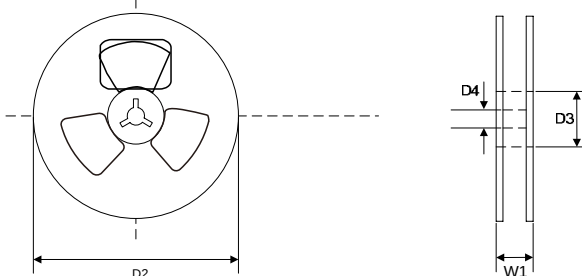


SMB		
Dim	Min	Max
A	3.30	3.94
B	4.06	4.70
C	1.91	2.11
D	0.15	0.31
E	5.08	5.59
G		0.20
H	0.76	1.50
J	2.13	2.44
All Dimensions in mm		



Dimensions	Value (in mm)
C	4.70
G	2.20
X	2.50
X1	7.20
Y	2.80

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±0.20
		A0	4.00±0.20
		B0	5.45±0.20
		K0	2.50±0.25
		T	0.20±0.10
		D2	330.0±5.0
		D3	73.0Min.
13" Reel		D4	14.0±2.5
		W1	16.0±2.5
		Quantity: 3000PCS	