

Features

Glass passivated junction
 Plastic package P-600
 Bi-directional or Un-directional
 Very Low Clamping Voltage
 High temperature soldering guaranteed: 265°C/10 seconds/.375",
 (9.5mm) lead length, 5lbs., (2.3kg) tension
 Continued current transient suppressor
 RoHScompliant
 12KW peak pulse power capability on 10/1000us waveform
 Operating Junction and Storage Temperature Range is -55°C to 175°C
 AEC-Q101

IEC Compatibility

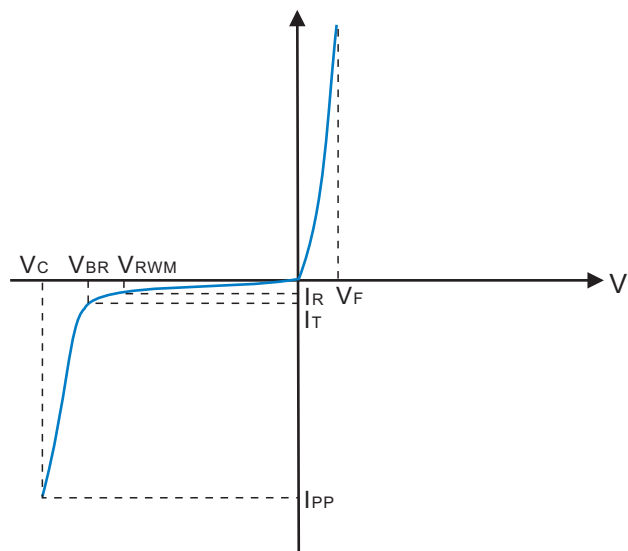
ISO 16750-2 Test A 12V System (87V 0.5 Ω 400ms 10c)
 24V System (200V 4 Ω 350ms 10c)

Applications

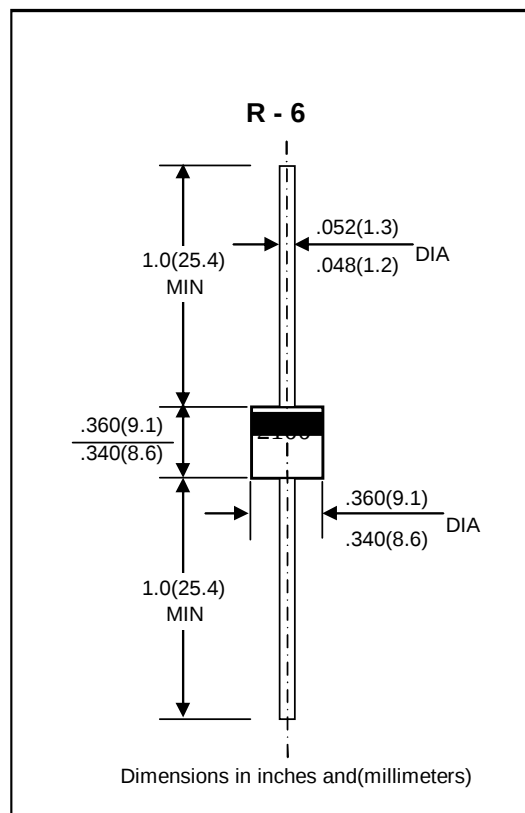
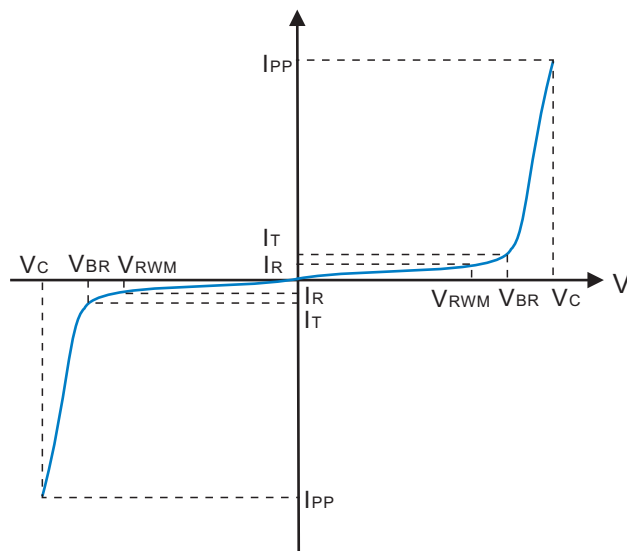
Auto powers system
 Can-bus
 ABS powers
 Car audio and video
 Automotive instrument
 Bluetooth
 Car GPS

I-V Curve Characteristics

Uni-directional

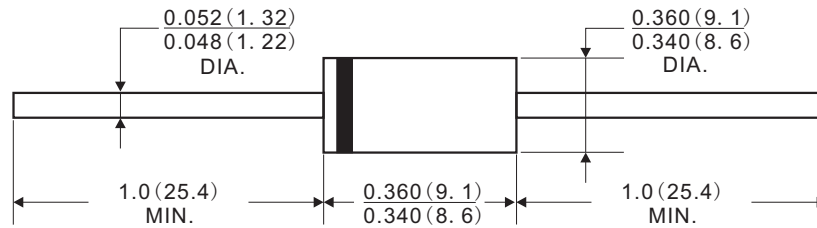


Bi-directional



Dimensions (P600)

Case Style P600



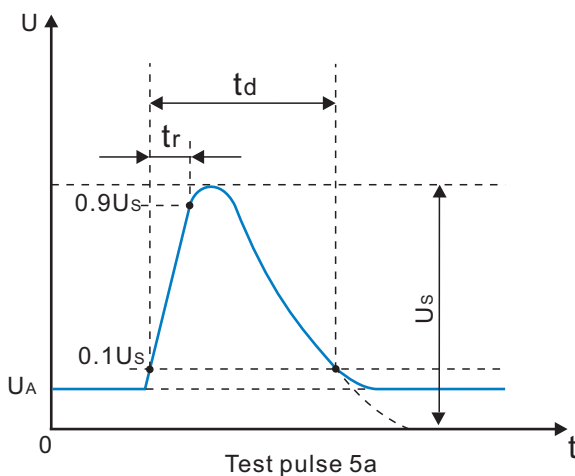
Dimensions in inches and(millimeters)

Electrical Characteristics

***Stand for commonly used models

PKS Part Number		Stand-Off Voltage	Reverse Leakage @V _{RWM}	Breakdown Voltage @I _T		Test Current	Max. Clamping Voltage @I _{pp} 10/1000μs	
UNI-Polar	BI-Polar	V _{RWM} (V)	I _R (μA)	V _{BR} (V)Min.	V _{BR} (V)Max.	I _T (mA)	V _c (V)	I _{pp} (A)
PKS22A	PKS22CA	22	2	24.0	26.9	5	35.5	338.0
PKS24A	PKS24CA	24	2	26.7	29.5	5	38.9	308.5
PKS26A	PKS26CA	26	2	28.9	31.9	5	42.1	285.0
PKS30A	PKS30CA	30	2	33.3	36.8	5	48.4	247.9
PKS33A	PKS33CA	33	2	36.7	40.6	5	53.3	225.1
PKS36A	* PKS36CA	36	2	40.0	44.2	5	58.1	206.5

Test ISO 16750-2 Test A



Parameter	12V System	24V System
U_s	79V to 101V	151V to 202V
R_i	0.5 Ω to 4 Ω	1 Ω to 8 Ω
t_d	40ms to 400ms	100ms to 350ms
t_r	$(10^0_{-5})ms$	

Ratings and Characteristic Curves (TA=25 °C unless otherwise noted)

Fig.1 Peak Pulse Power Rating Cure

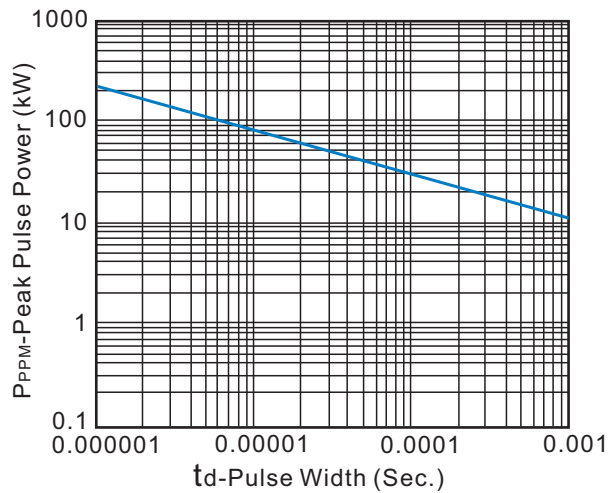


Fig.2 Typical Junction Capacitance

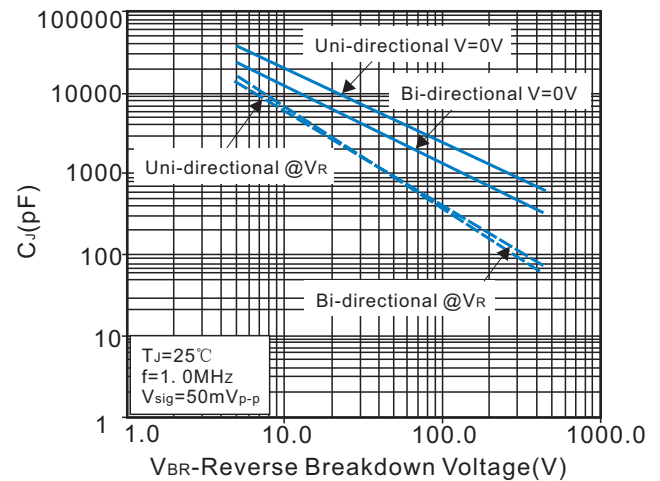


Fig.3 Pulse Waveform

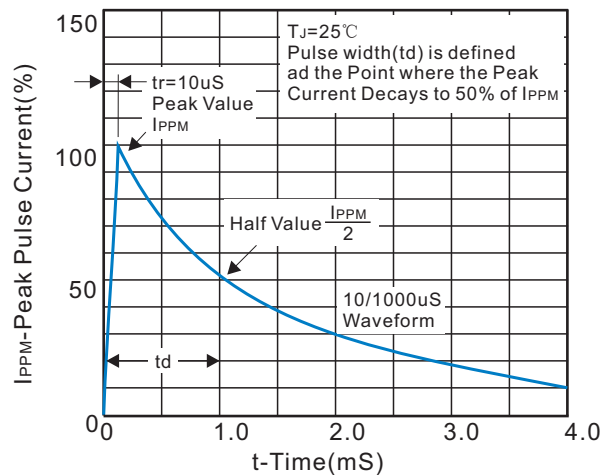


Fig.4 Maximum Non-repetitive Forward Surge

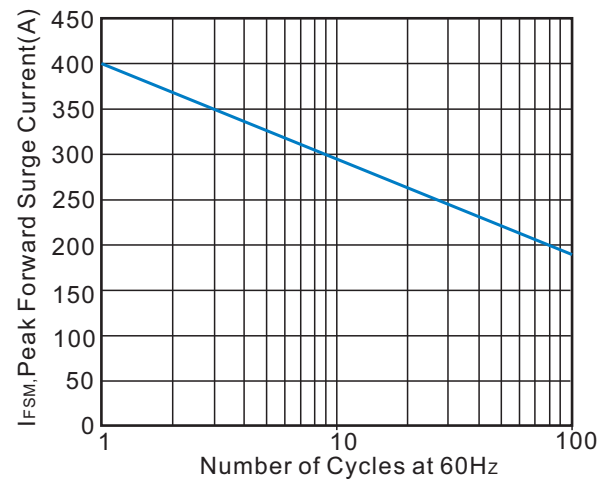


Fig.5 Ri-Vs chart for ISO-16750-2 Test A : 12V System

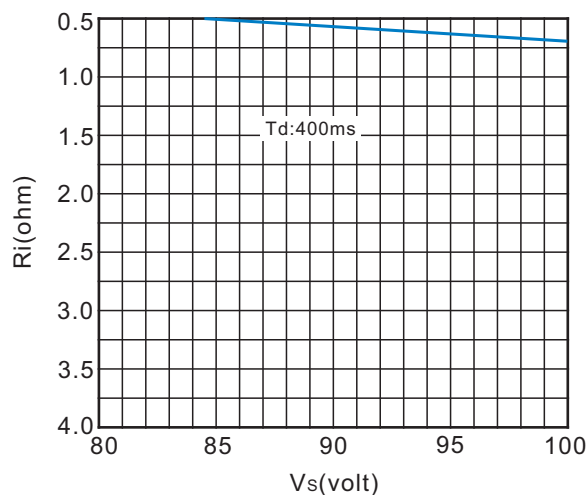
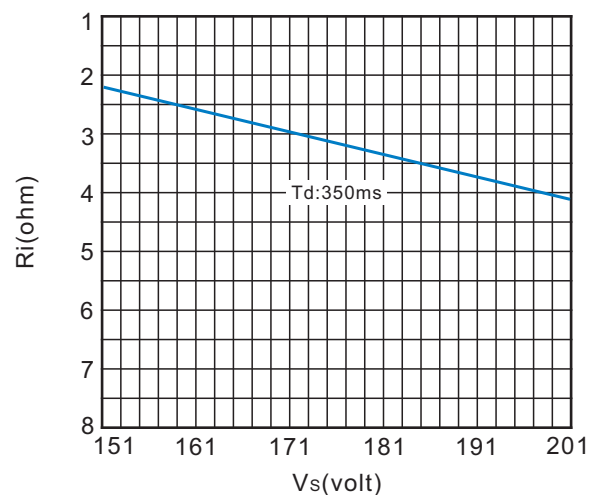
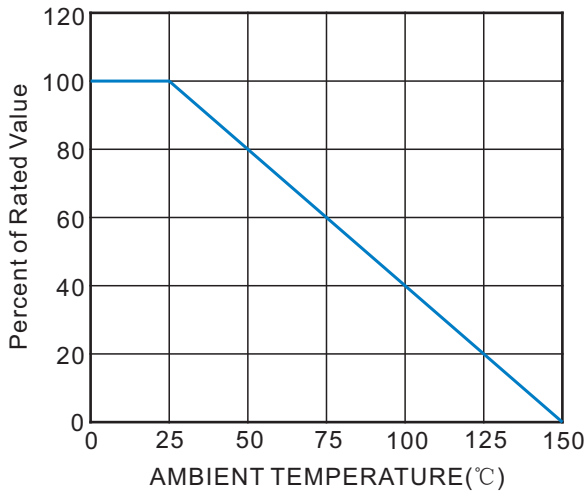


Fig.6 Ri-Vs chart for ISO-16750-2 Test A : 24V System



Ratings and Characteristic Curves (TA=25 °C unless otherwise noted)

Fig.7 Power Derating Curve



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

