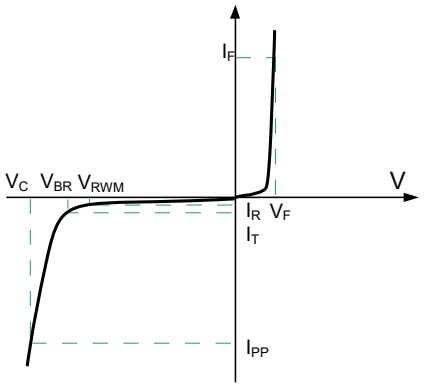
ELECTRICAL CHARACTERISTICS (T_A = 25°C unless otherwise noted)

Symbol	Parameter
V_{RWM}	Peak Reverse Working Voltage
I_R	Reverse Leakage Current @ V_{RWM}
V_{BR}	Breakdown Voltage @ I_T
I_T	Test Current
I_{PP}	Maximum Reverse Peak Pulse Current
V_C	Clamping Voltage @ I_{PP}
P_{PP}	Peak Pulse Power
C_J	Junction Capacitance
I_F	Forward Current
V_F	Forward Voltage @ I_F



Electrical Characteristics @ 25°C (Unless Otherwise Specified)

ESD3V3D5

Parameter	Symbol	Conditions	Min.	Typ.	Max.	Units
Reverse Working Voltage	V_{RWM}				3.3	V
Reverse Breakdown Voltage	V_{BR}	I_T = 1mA	5			V
Reverse Leakage Current	I_R	V_{RWM} =3.3V			0.08	μA
Forward Voltage	V_F	I_F = 10mA			0.9	V
Peak Pulse Current	I_{PP}	t_P=8/20μs			16	A
Clamping Voltage	V_C	I_{PP}=5A, t_P=8/20μs			9.4	V
Clamping Voltage	V_C	I_{PP}=16A, t_P=8/20μs			13	V
Peak Pulse Power	P_{PK}	t_P=8/20μs			220	W
Junction Capacitance	C_J	V_R = 0V, f = 1MHz		105		pF

ESD5V0D5

Parameter	Symbol	Conditions	Min.	Typ.	Max.	Units
Reverse Working Voltage	V_{RWM}				5	V
Reverse Breakdown Voltage	V_{BR}	I_T = 1mA	6.2			V
Reverse Leakage Current	I_R	V_{RWM} =5V			0.05	μA
Forward Voltage	V_F	I_F = 10mA			0.9	V
Peak Pulse Current	I_{PP}	t_P=8/20μs			9.4	A
Clamping Voltage	V_C	I_{PP}=5A, t_P=8/20μs			11.6	V
Clamping Voltage	V_C	I_{PP}=9.4A, t_P=8/20μs			18.6	V
Peak Pulse Power	P_{PK}	t_P=8/20μs			174	W
Junction Capacitance	C_J	V_R = 0V, f = 1MHz		80		pF

Electrical Characteristics @ 25°C (Unless Otherwise Specified)

ESD7V0D5

Parameter	Symbol	Conditions	Min.	Typ.	Max.	Units
Reverse Working Voltage	V_{RWM}				7	V
Reverse Breakdown Voltage	V_{BR}	I_T = 1mA	7.5			V
Reverse Leakage Current	I_R	V_{RWM} =7V			0.03	μA
Forward Voltage	V_F	I_F = 10mA			0.9	V
Peak Pulse Current	I_{PP}	t_P=8/20μs			8.8	A
Clamping Voltage	V_C	I_{PP}=5A, t_P=8/20μs			13.5	V
Clamping Voltage	V_C	I_{PP}=8.8A, t_P=8/20μs			22.7	V
Peak Pulse Power	P_{PK}	t_P=8/20μs			200	W
Junction Capacitance	C_J	V_R = 0V, f = 1MHz		65		pF

ESD12VD5

Parameter	Symbol	Conditions	Min.	Typ.	Max.	Units
Reverse Working Voltage	V_{RWM}				12	V
Reverse Breakdown Voltage	V_{BR}	I_T = 1mA	14.1			V
Reverse Leakage Current	I_R	V_{RWM} =12V			0.02	μA
Forward Voltage	V_F	I_F = 10mA			0.9	V
Peak Pulse Current	I_{PP}	t_P=8/20μs			9.6	A
Clamping Voltage	V_C	I_{PP}=5A, t_P=8/20μs			23	V
Clamping Voltage	V_C	I_{PP}=9.6A, t_P=8/20μs			25	V
Peak Pulse Power	P_{PK}	t_P=8/20μs			240	W
Junction Capacitance	C_J	V_R = 0V, f = 1MHz		55		pF

Curve Characteristics

Fig. 1 - 8 X 20μs Pulse Waveform

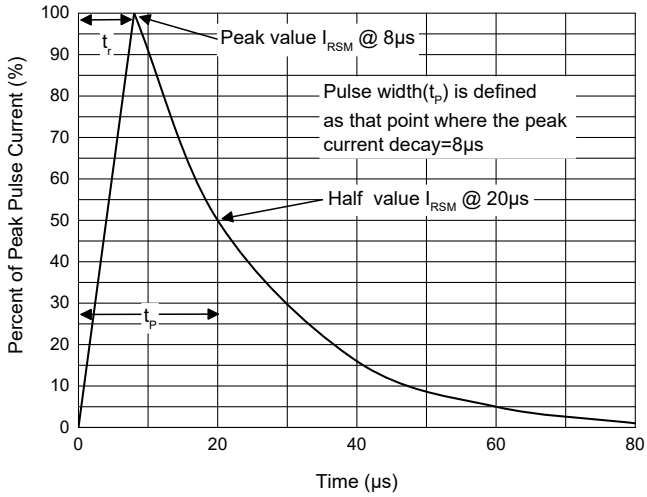
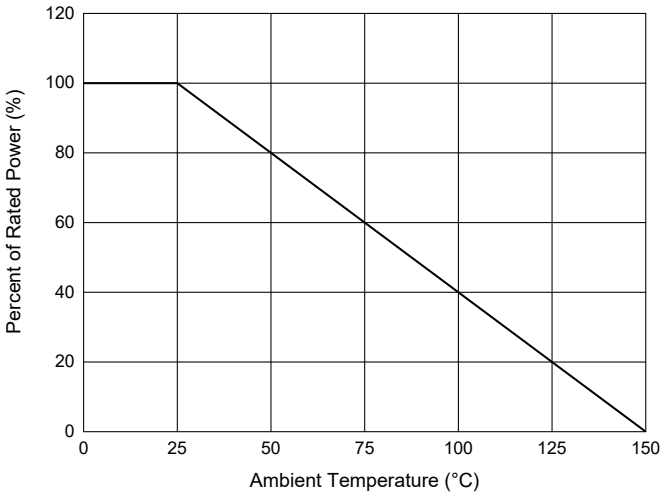


Fig. 2 - Pulse Derating Curve



Ordering Information

Device	Packing
Part Number-TP	Tape&Reel: 8Kpcs/Reel

Mouser Electronics

Authorized Distributor

Click to View Pricing, Inventory, Delivery & Lifecycle Information:

Micro Commercial Components (MCC):

ESD12VD5-TP ESD3V3D5-TP ESD7V0D5-TP ESD5V0D5-TP