

Step recovery diodes (SRD)



STEP RECOVERY DIODES (S.R.D.)

Description

These diodes use mesa technology and oxide passivation. They support fast switching and multiplier applications:

- very short pulse generation,
- ultra fast waveform shaping,
- comb generation,
- high order multiplication, at moderate power ratings.

Chip diodes		Chip and packaged diodes						Packaged diodes				
Characteristics at 25°C		Gold dia Δ	Breakdown voltage V_{br}	Junction capacitance C_j	Min. car. lifetime t_l	Snap-Off time t_{so}				Thermal resistance R_{th}		
Test conditions		N/A	$I_r = 10 \mu A$	$V_r = 6 V$ $f = 1 MHz$	$I_f = 10 mA$ $I_r = 6 mA$	$I_f = 10 mA$ $V_r = 10 V$				$P_{diss} = 1 W$ in F 27d		
Type	Case	μm	V	pF	ns	ps		Type	Case (1)	°C/W	Other cases (1)	
		typ.	min.	max	min.	typ.	max		$C_b = 0.1 pF$ (2)	max	$C_b = 0.18 pF$ (2)	$C_b = 0.12 pF$ (2)
EH541	C2a	160	30	1.5	25	90	140	DH541	A22e	30	F27d	M208
EH542	C2a	220	50	1.5	40	150	250	DH542	A22e	25	F27d	M208
EH543	C2a	110	30	1.0	20	90	140	DH543	A22e	40	F27d	M208
EH544	C2a	140	50	1.0	35	150	250	DH544	A22e	35	F27d	M208
EH545	C2a	55	25	0.4	10	75	100	DH545	A22e	70	F27d	M208
EH546	C2a	40	15	0.3	6	60	80	DH546	A22e	100	F27d	M208

(1) Custom cases available on request

(2) $C_T = C_j + C_b$

Temperature ranges:

Operating junction (T_j) : -55° C to +150° C

Storage : -65° C to +175° C